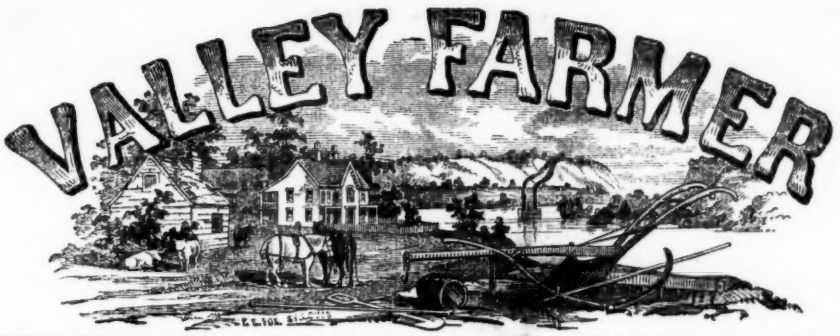
VALLEY FARMER



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AGRONOMY;

OR THE SCIENCE WHICH RELATES TO THE CONSTITUENT PARTS AND PHYSICAL PROPERTIES OF THE SOIL, &c.—NO. 2.

SILICA.

This earth derives its name from *silex*, which, as well as *quartz*, is almost entirely composed of it. When combined with alkalies it forms glass. In the opinion of ancient chemists it was the primitive earth.

Silica occurs in nature more abundantly than any of the other earths. All hard stones which give out sparks when struck by steel—the mountain masses of granite, porphyry, geniss, &c., together with the vast oceans of sand in deserts and plains, are mainly composed of silica.—Nearly all the stones in nature contain more or less of this substance, and there is scarcely a single plant that does not contain and yield it, after combustion, in the form of ashes. The stems of grains and grasses contain large quantities of it; indeed, it is mainly from this material that the stalks of the small grains, Indian corn, cane, &c., derive their strength. It forms the epidermis or outer coating of the stems of all these crops. Grain grown on peaty soils, and all soils deficient in silica is liable to fall or "lodge" on this account.

Silica, like the other earths, is rarely found in a state of absolute purity; and quartz itself, of which it forms the greater part, also contains an admixture of alumina and oxyde of iron.

Among the bodies in whose composition silica forms the principal ingredient and which exhibit its character in the highest degree, we shall notice the following, as those of which it may be useful to the agriculturist to possess some knowledge:

1st. All precious stones, with the exception of the diamond, viz: the *ruby, sapphire, emerald, chrysolite, topaz, hyacinth, amethys, chalcedony, cornelian, agate* and *garnet*.

2d. *Fire flints, petro-silex.* The first of these are found in heaps on all plains, especially in countries which have a sandy soil, and also in chalk hills, embedded in the purest chalk. Geologists have long been endeavoring to discover how the flints came to be lodged or produced in such a situation. There is some plausibility in the supposition that the lime has been converted into silica, for the transition of lime into a state of flint is often observed; and organic remains are frequently found in the middle of the flint, thus proving its recent formation. This kind of flint, before the introduction of percussion caps, was extensively fabricated into gun-flints. For a long time the mode of working flint was only known in England, France and Spain. Besides this use of flint, it is also employed in the manufacture of enamel, and of stone wares, and in the composition of glass, especially that beautiful material called flint-glass.

3d. *Quartz* is composed of crystaline and vitreous particles. It breaks into angular fragments. It is often transparent, and is found in large masses and crystals. When these latter are large, transparent and of columnar shape, it is called rock-crystal.

4th. *Granite, gneiss and porphyry,* are minerals possessed of great hardness, and are formed of different stones. They constitute the basis of primitive rocks, and are also met with in large masses in plains. Granite is composed of quartz, feldspar and another stone of an argilaceous nature, called *mica.* Gneiss closely resembles granite; it is composed of feldspar, quartz and mica. Porphyry consits of feldspar and also sometimes a portion of mica.

5th. *Sand* is probably formed, for the most part, of quartz, as it does not differ essentially from that mineral in its chemical composition. Immense floods of water, the action of the atmosphere, and probably, also that of fire and other agents have reduced the quartz to fragments, which have subsequently acquired a rounded form by rubbing against each other in consequence of the motion communicated to them by the air and water. Below the surface of the ground sand is found in veins, or elongated strata, between other layers of earth. It is to these beds of sand that we are indebted for our purest springs. Water as it filters through them, deposits the impurities it contains, and increases in clearness during the whole of its course.

Although the grains of sand are for the most part composed of silica they always contain small portions of alumina and oxyd of iron. Sand has as little attraction for water as pure silica; and thence, as from the circumstance of its not having the attraction of cohesion for *humus,* arises the sterility that attends soil composed in too large proportions of that earth. When sand is united into hard masses by adhesive matter, such as clay and lime, it is called *sand-stone.* There are various kinds of this substance, all differing from one another in fineness and in density. When first taken out of the ground they are soft and are easily wrought for building purposes, mill-stones, grind-stones, &c. To this class also belong filtering stones, which allow water to pass through them like a sponge.

Turnips.—The dry weather has cut short our potatoes as well as other winter vegetables. In some parts of the country the parched earth has already been visited with showers, and in others we are looking for rain. Now the ground should be prepared for turnips and in readiness to sow the seed immediately after the first shower.—Every spot where early potatoes have been dug, where peas, &c., have been gathered may be prepared for turnips. All that can be grown will be wanted for the family, for market, or for the milch cows.

Storing Potatoes---Potato and Apple Houses.

As we have before said, the potato crop is one of the most important to many of the farmers residing near the Western rivers, that is cultivated. Upon suitable soil and with proper care there is no crop that affords a more profitable return. Probably one-third of the potatoes grown in this section are shipped to market soon after they are harvested in the fall; a large proportion of the remainder are ccvered in pits in the fields where they grew, and held for winter and spring sales.

In storing potatoes in this way it is seldom that sufficient care is bestowed to ventilate the heaps, so as to admit of a thorough escape of the moisture and gases always generated where such a body of vegetable substance is stored. Potatoes undergo, soon after being put up, a certain degree of fermentation, which produces heat and causes the potatoes to sprout and grow, which not only impairs their strength and vigor for seed, but renders them unfit for the table. Those who have stored their potatoes at the proper time in suitable dry cellars, well know the difference between them and such as are kept in banks in the field. Besides the injury sustained in keeping potatoes in this way from heating, growing and the moisture absorbed by them, if the winter proves a severe one, like that of 1856, they are liable to be destroyed by frost. We believe that the value of the potatoes lost last winter to the farmers in the West, by frost, was more than equal to the cost of building suitable houses that would last a lifetime, in which to store the crop.

We propose to give the plan of a building for storing potatoes similar to one for many years in use by the society of Shakers, at Pleasant Hill, Mercer county, Ky. Potatoes are here stored to the amount of several hundred bushels annually, and kept throughout the season in the most perfect state of preservation; always in order and always accessable: and as many thousand bushels could as well be preserved by extending the length of the building in proportion to the quantity to be stored. We give two plans for constructing the buildings.

The house may be built of logs, 14 or 16 feet wide and any desired length, making the walls six inches thick, with a plank lining inside, leaving a space of five inches between it and the logs, which is to be filled with old tan bark; where it is not convenient to procure tan bark, any other non-conductor of heat may be used, among these are pulverizd charcoal, sawdust and wheat chaff. We should prefer any of them

to wheat chaff, but when it is used it should be compactly pressed in. A ceiling or floor overhead should also be laid with a covering of five or six inches of similar material. The floor should be laid so as to exclude the cold air from without. The house should stand lengthwise north and south, with the door in the south end. The door should be double with a similar lining of five inches between them. Bins should be built on each side, leaving a passage of three or four feet wide through the middle of the house. The sides of the bins may be carried three or four feet high; a greater body of potatoes than this should not be laid together, but another tier of bins may be placed above, if required. Ventilators should be put in at the bottom of each of these bins and run entirely through the ends of the building, communicating with the open air; these may be made in the following manner: Take two boards six inches wide, place the edges six inches apart on the bottom of the bin, and bring the upper edges together within one inch of each other in a triangular form and firmly secure them from the upper side. This will carry off any sweat or dampness that may gather from the potatoes, rendering them always dry, and equalizing the temperature. When the weather becomes freezing these holes may be closed from the outside with hay or straw.

If more convenient, the building may be made by setting double rows of posts in the ground, which are planked up, forming the walls, leaving a space of ten or twelve inches to be filled with tan bark or saw dust. In all other respects the house should be finished as directed for the one made of logs.

The cost of a building of this kind that would store a thousand bushels of potatoes will not exceed the extra labor of putting away in pits, in the usual manner three crops of one thousand bushels each, while the increased value of the potatoes housed for three years, would more than equal the cost of the building, to say nothing of the advantages of having the potatoes always accessable during winter.

Potatoes for winter storing should never be dug before the 10th or 15th of September.

A house properly constructed, according to the plan here laid down, will keep potatoes through any ordinary winter. But should exceeding cold weather set in and continue, as it did last winter, a small fire in an air-tight stove, or a pan of coals placed in the centre of the passage might be found necessary on some of the coldest nights.

We introduce this subject in this number of the Valley Farmer in order to afford ample time for any who may be disposed to prepare such a building to do so before the potato harvest.

STORING APPLES.

An additional improvement may be made in the construction of these buildings, which will render them admirably adapted to storing apples, while at the same time the addition might prove equally valuable in keeping potatoes.

Apples should always be gathered before much frost occurs. When gathered, they should remain until the weather becomes cool before they are finally packed for winter, and then they should never be disturbed or picked over until they are required for use, or for market.

Apples should always be kept in as uniform temperature as possible, and that temperature should be maintained as near as may be just above the freezing point.

The improvement we propose, to render the building we have described, suitable for storing apples, is to erect a shed entirely around it, say six feet wide, of common boards, not jointed, and placed upright. Within this shed, against the out side, bins should be made, into which the apples are to be placed as they are gathered; here they are to remain until they pass through the ordinary sweating, and are finally packed in barrels or the bins inside the building. This shed will aid in breaking off the effects of the sun and equalize the temperature within.

Another method of preserving apples and all other fruits, meats, &c., has been established and patented by John C. Schooley, of Cincinnati, Ohio. Mr. Schoolev's process is predicated upon strict philosophical principles, and so far as it has been tested has been found to answer the purpose perfectly. We saw in June last, apples of different varieties that had been preserved by this process, apparently sound and as firm as when taken from the trees The method adopted is to keep a current of cold, dry air continually passing through the preserving apartment by the use of ice. The principle is illustrated and rendered available to every house keeper by Schooley's patent portable Refrigerators now coming into general use in the West.

To render this process available for the preservation of fruits, meats, &c., on a large scale, is required an ordinary ice house and a room adjoining for the fruits &c. From the ice into the room a current of cold air is conveyed, which reduces the temperature to a point so low as to prevent fermentation. The air, by coming in contact with the ice, is condensed and deposits its moisture before it passes into the fruit room

keeping the fruit both cool and dry—the chief requisite for preservation.

As this is a patent process it is unnecessary for us to give a further description of it. Persons wishing to avail themselves of the method can obtain the necessary information in a printed work, by addressing John C. Schooley, Esq., Cincinnati, Ohio.

The Hon. Marshal P. Wilder, President of the United States Agricultural Society and of the American Pomological Society, in speaking of this process in a letter dated July 1855, says: "I entertain no doubt of its complete success. The introduction of your Safes and Preserving Rooms, will not only be the means of saving millions of dollars, annually, but of contributing largely to the luxuries of life by perpetuating them beyond their usual duration. I have had a visit from a friend who has made trial of this process. He informs me that he kept strawberries in his Fruit-room, from the 1st to the 20th of June, in such perfect condition that those who tasted them did not discover that they were not fresh from the vines."

Mr. William Sims, of Dayton, Ohio, who has one of these fruit-rooms, in a letter to the patentee, dated Feb. 21st 1855, says: "My preservatory is in the cellar, and is thirteen by seventeen feet square, and seven feet nine inches high, and last year I placed in it twenty-one kinds of apples, as follows: 180 bushels in drawers, 41 bushels on racks, 80 bushels on shelves, 15 bushels in open flour barrels; half bushel of grapes, and a quantity of pears in drawers. My losses out of the above quantity are, *three apples, five grapes and seven pears.*" Mr. Sims says his ice house is 20 feet by 8 feet and 16 feet deep. In conclusion he says, "*I would rather this day have a good bearing orchard of two hundred trees, with your patent process of preserving fruits attached, than the profits of a farm of one hundred acres of good tilled land without it.*"

This process is now in operation on an extensive scale in various portions of the United States for curing pork and beef, and we believe has given general satisfaction.

Corn for Winter Fodder.—The dry weather the present season has cut short the hay crop, leaving a short supply of forage on many farms. A good substitute for hay, is corn sown broadcast at the rate of 3 1-2 bushels per acre, or planted in drills, 16 to 18 inches apart, 2 1-2 bushels per acre. Run a shovel plow between the rows when five or six inches high; it will greatly increase the yield. To cure the crop, tie up in small bundles and put up in compact shocks.

Drilling Grain vs. Broadcast Sowing.

Quite a number of Grain Drills have been invented and patented in the United State within the last twenty years, but it is only within six or eigth years that these machines have been brought to a comparative degree of perfection. These drills are mostly all made on the same general principle, with slight modifications, which constitute the difference between the severral patents. We do not now remember the names of all the patentees of the most perfect of these machines. Seymour's was among the first that came into use. Recent improvements have made it all that need be desired. It is manufactured by Warder, Brokaw & Child, at Springfield, Ohio, and by others in various parts of the United States. A very good Drill is manufactured at Dayton, Ohio, by Messrs. Pritz & Co. And Pennock's patent is manufactured by Terrell & Buchanan, St. Louis, Mo.

In the various sections of the country where the grain Drill is manufactured, and the advantages of the drilling system best understood, there the drill has come into general use. We believe that the real profits resulting from the use of the Wheat Drill are really greater than the profits arising directly from the use of the Reaping machine over the old system of harvesting, but as the increased production of wheat of late years is such that laborers coul not conveniently be procured to harvest the crop by hand, necessity has brought the Reaper into general use. But as seed time is comparatively a season of more leisure, the Seed Drill has not been so universally adopted.

The advantages claimed in favor of drilling wheat over that of sowing broadcast, and we believe they are within the truth, are

1st. At least one peck of seed to the acre is saved.

2d. The plants are more uniformly and deeper rooted, and consequently less effected by frost in winter, and drouth in spring.

3d. The growing crop is more exposed to the drying influences of the sun and air, and consequently less liable to attacks of rust.

4th. With the advantages above stated, the crop may be expected to yield, according to circumstances, from *three* to *five* and even *seven* bushels per acre more than the wheat that is sown broadcast.

The advantages of Drill Husbandry were fully established in England by Jethro Tull, and the system has since been very generally practiced in that country, to the present period.

In the volume of the "Transactions of the Bath and West of England Society for the En-

couragement of Agriculture, Arts, Manufactures and Commerce, for the year 1795," a prize of *Ten Guineas* was awarded to Mr. John Exter for a statement, the result of his own practice, showing the advantage of drilling grain, from which we propose to make some extracts, altho' we could furnish abundant proof on this point from the experience of our own farmers at the present day, but we wish also to show how slow we are to yield our old practices, even for important and valuable improvements.

Mr. Exter says: "I therefore ordered a machine which I received in the autumn; but owing to its being detained by unfavorable winds on the sea, too late for my wheat tillage—that was finished before I received it. However, as I had got the machine, I was anxious to make some trial of it, and having only one piece of ground at that time in a possible state to admit of drilling, a very foul and poor piece of pea-stubble, worth about twelve shillings per acre, I dertermined to begin with that, though the land was neither manured nor in tilth for grain of any kind. The field was a piece of light, dry, loamy land, middling barley soil, and I drilled it at the rate of *one bushel* of wheat per acre, in rows, with nine inches intervals. My servant man, an orthodox manager in the old husbandry of the country, and very averse to the drill system, on account of the apparent complexity of the machine and the idea of the great loss of land in the intervals between the rows of plants, was directed to fix on any part of the field which he considered as best in tilth and condition to sow it broadcast, and to manage it exactly as he should think proper. He confessed the part he chose was better by five or six shillings per acre than the average of the drilled land, and he sowed his part at the rate of *two bushels* per acre, the usual allowance of the country. The drilled crop being thin sown, made but a poor appearance till June. At harvest the drilled part yielded 19 bushels, 3 pecks, nine gallon measure, per acre; the part broad cast, not quite five bushels per acre.

"In the spring of 1792, I tilled 30 acres of land, worth from 35s to 40s per acre, with barley; fifteen acres drilled at *two bushels* per acre, with rows at nine inches, and fifteen acres broadcast from *three to four* bushels per acre, the preparation of the land, manuring, &c., in every respect alike. The season proved very wet, both during the growth of the crop and at harvest. The part broadcast was lodged, stained, and with great difficulty harvested at all. The drilled grain stood better, scarcely any of it was lodged, was all saved without the least injury, at half the extra expense of the broad cast; the produce of the grain from *ten* to *fifteen* bushels per acre more, and *a shilling* per bushel better, and this, notwithstanding the whole of the broadcast crop had the advantage of being the first sown—a circumstance which, that season, was particularly remarked by the neighboring farmers to have been universally favorable to the crop, the early sown barley having everywhere succeeded better than the late sown.

"In October following, I tilled a field of ten acres with wheat: the managment of the field, with respect to tilling, manuring, &c., in every respect similar, except that one-half was drilled with *one-half* the quantity of seed, at nine inches intervals, and that the other half was sown broadcast. But as some doubts were advanced respecting the value of the land on the different parts of the field, two twelve-furrow ridges, by way of proof, were gathered through the middle of the part intended to be drilled, and the drilling was begun on each side of those ridges. The ridges were plowed, sown and managed according to the common husbandry of the country, by the person before mentioned. At harvest the two ridges were cut first, and immediately after a breadth of broadcast on each side of the ridge was cut, and each part stacked and kept separate till it was dry enough to thresh, when it was carted into two different barns and immediately threshed and winnowed; the drilled crop yielded 29 bushels 3 pecks, and the broadcast 20 bushels 1 peck."

There are many other interesting facts related in the statement going to show the advantages of drilling grain, but we ask our farmers to make the experiment for themselves.

THE CAMELS.

Some months ago we published an article in the *Valley Farmer* stating that our government had sent to Smyrna for some camels to try them as beasts of burden on this continent. We have now to say that the long looked for animals have arrived, thirty-five in number, a rough, shaggy, humpy set, as was ever landed on an American shore. They were brought by the U. S. store ship *Supply;* and were confined for over three months in a narrow place in the lower part of the ship, with three Arabs and two Turks, to attend to their wants. One was born on the passage near the Trade Winds, and the jolly tars called it "Trade Wind." Great curiosity was excited at New Orleans when the ship arrived and numbers of people were led by curiosity to the vessel to see the new comers.—They were taken on board the steamer Fashion

to be taken to Matagorda Bay, and thence by land to the great deserts of Texas, where they are to be tried as burden bearers across the sand plains of that hot country.

The camel is an ill-shaped animal, ugly to behold, of a redish gray color, as it were a red faded out, or sun-burnt, with soft, woolly hair, of different lengths, being long on the nape, under the throat, about the hump and on the tail. The hair is sometimes used for manufacturing cloth.

There are two varieties of camels. One has two humps, the other one. The two humped camel is larger and stronger, being capable of carrying a thousand pounds burden and is best adapted to rugged ground; the other will live on poorer and scantier food, and is best adapted to long desert marches; it is also lighter and of greater fleetness. It is about seven feet high at the shoulders.

The feet of the camel are soft and flat, being provided with a kind of cushion with which it presses upon the hot sand, and divided into two parts, or toes, which are united underneath with a kind of horny sole. The nostril is so formed that the animal can close it at will and thus escape harm from dust and sand clouds.

The camel is provided with a sort of water-sack, or second stomach, with which it can provide itself with water for a long journey, which it can use as it needs.

The hump or humps on its back which give it such an unsightly appearance, are composed mostly of fatty matter deposited there when it is well fed to be used to sustain life when food cannot be had. It is thus for food and water, peculiarly adapted to a desert country and long marches. It carries its food on its back in the most concentrated form, and its water in its chest. It is also provided with callosities, or pads on its knees, stifles and brisket, which enable it to rest on the scorching sand without harm.

It kneels to receive its burden, and will not rise if loaded too heavy. A common load for a long march is six or seven hundred pounds, which it will carry thirty miles a day. When on its desert journey it will smell water for several miles, which causes it to press forward in haste.

It is capable of great endurance; will bear many hardships, and often live to a hundred years of age; it is submissive and obedient to its master, but cross and quarrelsome with its kind.

With this good start of thirty of these animals, if the climate is favorable, in a few years our desert region will be supplied with these useful carriers.

THE WHEAT MIDGE.

Wheat, the most important of all our staple crops, is liable to more casualties and depredations from various insects than any other cultivated in the United States.

The wheat fly, commonly called the Hessian fly, is said to have been introduced into the United States by the Hessians in the time of the Revolutionary war. For many years the injury to the wheat crop caused great alarm among the farmers of this country. By change of seed and by early and late sowing the depredations of this insect have in some degree been checked of late years in our country.

The most formidable enemy to the wheat crop now in the United States is known under the name of Wheat Midge, (*Cecidomyia Tritici.*) Of the manner by which it was introduced into our country, we believe it is not generally known. The Wheat Midge was first clearly recognized in 1820, in the north west part of Vermont, but Dr. Fitch claims to have some evidence that it was in our country several years anterior to that date, although it did not become so numerous as to attract particular attention until eight or ten years afterwards. In England it was known as early as the year 1771. Since its depredations have become alarming, and its habits observed and understood, it is ascertained that it is making a steady and gradual yearly progress westward. When we first saw it in 1835, it had reached Albany County, New York; it has since extended over a considerable portion of Ohio and Indiana, where in 1854, the loss resulting from its ravages amounted to millions of dollars. So generally destructive was it in New York in that year, that Col. B. P. Johnson, the efficient Secretary of the New York State Agricultural Society addressed circulars to the principal wheat growers of the State, with the enquiry, "To what extent was the wheat crop in your vicinity injured by the midge?" The facts thus derived were authentic and complete, and placing the estimates at the lowest figures and far within the truth, it was ascertained that the value of the wheat destroyed by this insect that year, at the fall prices amounted to the enormous sum of *fifteen millions of dollars.* Estimating the wheat thus destroyed at the price to which it afterwards rose in the market the same season, the amount of loss would have been several millions greater. In several States, the present season the crop of wheat has been much injured though to a less extent than in 1854.

The midge is among the smallest insects visible to the naked eye.

The winged or perfect insect makes its appearance about the time the wheat comes into blossom. If you enter the fields, infested with them at this time with a lantern, they may be seen in myriads upon the wing, dancing up and down among the heads of the wheat, intent upon depositing their eggs in the embryo grain, from which emerges a minute worm of a bright yellow color. Several of these insects are frequently found attached to every grain in the head where they commence their work of destruction by consuming the milky substance, which would otherwise go to make up the grain, and thus whole fields are blasted. After the insect has completed its depredations upon the grain and arrived to the maturity of its larva state, it descends to the ground where it remains slightly below the surface until spring when it is transformed to the pupa state, ready to emerge again into the perfect insect and to enter upon its work of propagating another generation in the field where their work of destruction is to be continued.

Various remedies for the ravages of this insect have been proposed, some of which it is claimed have proved effectual, yet many of them are not easily applicable on a large scale, should they otherwise prove destructive to them. One most readily applied is to scatter newly slaked lime broadcast over the grain just at the time when the heads are forming, and immediately after a shower of rain, or early in the morning when the dew is on so that the lime will adhere to the heads and stems of the grain. Good unslaked lime is procured which is prepared by sprinkling water over it, just sufficient to cause it to pulverize. It is then immediately applied while in the most caustic state.

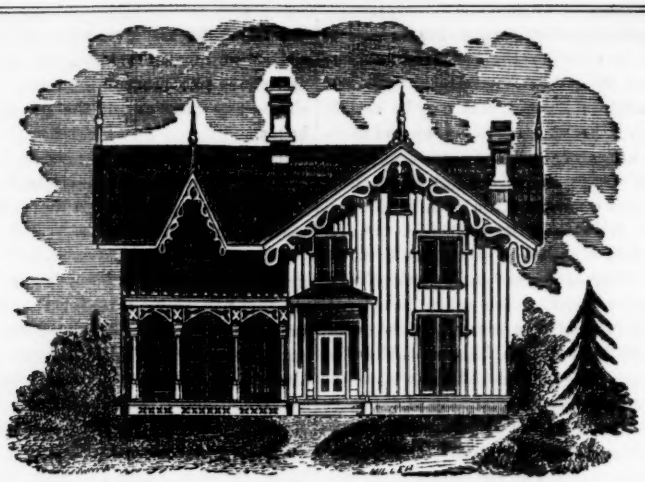
A more effectual remedy, requiring no unnecessary labor and one productive of good in other respects, has been proposed by Mr. H. Darling in the "Michigan Farmer." The remedy proposed is the result of an experiment which is thus related by Mr. D.: "Having constructed two boxes, each about three feet square and nine inches deep, covering the top with millinet, and leaving the bottom open to the ground, I selected a spot in the field where wheat had been harvested the preceding season, and where the wheat had been entirely destroyed by the midge and there placed the two boxes side by side—the first box on the ground that had remained undisturbed since the harvest—the second on the ground that had been turned over with a spade, ten inches deep. Care was taken to make the boxes tight and fit them closely to the ground, to allow no opening anywhere but through the meshes of the millinet, which were sufficiently coarse to admit the light, air and rain, and fine enough to prevent the escape of the flies, should any come out of the ground under the boxes.

The boxes were set about the first of June last. [This was in a northern latitude where the wheat heads out later than upon the farms of most of our readers. Eds. V. F.] On the 12th of the same month, sure enough, the true wheat fly, the indubitable midge, began to appear in the first box—some three or four only at first, but increasing daily till the 26th, when there were seen scores of them. From this time to the first of July they remained, as to numbers, about stationary, when apparently all at once there were several hundred—the weather being very warm and somewhat showery—swarming in the clover now grown up under the box. Coincident also with their appearance in the box they were noticed in the adjacent clover field, in which they appeared to find an appropriate nursery home, until strong enough to fly off to the field of wheat.

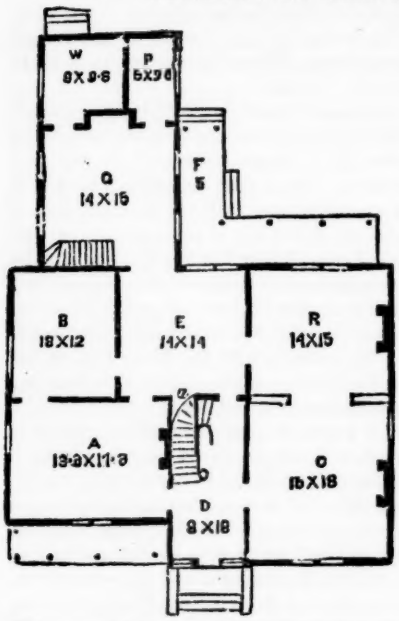
In the meantime the *second* box was carefully watched, and nothing was discovered therein up to the 28th of June. Supposing by this time that the spade had done an effectual work with the embryo midge, this box was not noticed again until the 3d day of July, when to my surprise, I counted near 150 flies, hanging torpidly like musquitoes, on the underside of the millinet. Dividing the four days that accrued between the last two observations, it would fix the time of their appearance under the *second* box, on the first day of July—*eighteen days after their appearance under the first box.*"

This proves the fact that if the ground is plowed as it always should be, where there is sufficient soil, to the depth of *ten* inches the insects are buried so deep, that the lower temperature of the soil at the depth, together with the distance they have to work up through the soil retards their developement and appearance above ground *eighteen* days, during which period the early varieties of wheat, and probably any variety would be so advanced as to be beyond the power of the insect to injure it. The insect descends into the ground where it was bred and if not turned under and retarded in its period of maturity, it would be ready to enter not only into neighboring fields of wheat, but probably travel for miles on the wing to other fields.

This enemy is rapidly spreading over our Western territory, and we here record its habits and the most probable and effectual remedies that our readers may be prepared to meet it.



COTTAGE IN THE RURAL POINTED STYLE.



This cottage is suitable for a moderate sized farm house, or a residence in the suburbs of a city. Roof projects 3 feet, finished with ornamental verge boards of 1 1-2 inch plank, and neat verandas with square columns, and a porch over the front door, supported by brackets.—The frame is of light timber, and covered with planed and matched boards, from 9 to 14 inches wide, put on vertically and battened over the joints with inch boards 2 1-2 inches wide. The windows are ornamented with hood mouldings.

The floor plans are arranged as follows: A, living room, 13 ft. 6 in. by 17 ft. 6 in. B, bedroom, 12 by 15; E, dining-room, 14 by 14; R, library, 14 by 15; C, parlor, 15 by 18, connected with library by sliding doors; D, hall, 8 by 18; G, kitchen, 14 by 15; W, wash room, 9 by 9 ft. 6 in.; P, pantry, 5 by 9 ft. 6 in. Principal story, 9 ft. 6 in. between joists; chamber story, 8 ft.

The cost of this structure, with cellar under the whole, will not exceed thirteen hundred dollars when completed.—*Merwin Austin.*

Home Supplies.

Many farmers have got into the pernicious habit of going abroad for a supply of many things they are not accustomed to raise, as fruits, butter and cheese, many kinds of seeds, garden seeds, grass seeds, &c. The habit is a bad one. It is a heavy tax on the productive energies of a farm. Some farmers buy their horses because they do not want to be troubled to raise them. Whatever can be raised on a farm, which is needed there, should be. It saves transportation, saves time, saves deception and fraud, saves exchanging, saves money, vexation, delays and disputes. It is a principle in political economy, (and political economy is but home economy on a large scale) that whatever is wanted for its own use within a country, should be raised there. The doctrine is to keep a country's specie in its own coffers; increase exports and diminish imports; sell much and buy little. This doctrine may be carried too far, but as a general rule it is a good one.

Great Trial of Reaping and Mowing Machines.

A trial of reaping and mowing machines took place at Richmond, Ind., on the 26th of June and continued three days, under the direction and management of the Indiana State Agricultural Society.

From all we can learn, this was one of the most important and interesting trials of harvesting machines ever had in the United States.—There was on the ground a large gathering of farmers from almost every portion of the State, including Gov. Wright and many other distinguished citizens.

There were about twenty-five single and combined machines entered for competition, including several new ones. The draft of each machine was determined by the dynamometer, the only practicable method of determining the power expended, but as the judges have not made public their report in full, we are unable to give the comparative draft of each machine, and other important points, but will do so when we receive the report.

The following are the names of the principal machines entered, and the names of the manufacturers, and the award of the premiums:—Manny's combined machine, manufactured by H. B. Howard, Louisville, Ky., entered as a Reaper, and Mower. Danford's combined machine, Beard & Sinex, Richmond, Ind. Mann & Son's combined machine, Mann & Son, Laporte, Ind. Kentucky Harvester, combined, Miller, Wingate & Co., Louisville, Ky. New Jersey (cam motion) combined machine, by Deitz & Dunham, New Jersey. Atkins' Self-Raker combined, by R. Dutton, Dayton, Ohio. Mann's patent combined, by White & Hollingsworth, Ind. Hovey's Combined Self Raker, by J. Ringe jr., Richmond, Ind. New York Self-Raker, by Warder, Brokaw & Child, Springfield, Ohio. Ketchum's Mower, by Warder, Brokaw & Child. Ball's Ohio Mower, by L. Warrick, Ohio. Heath's Mower, by A. H. Carl, Sandusky, Ohio.

One day was devoted to the trial of reapers, and another to the mowers. The following is the award of premiums: Manny's combined machine, H. B. Howard, Louisville, first premium as a combined machine, $50. Heath's Mower (cam motion) first premium for mower, $50. New York Self-Raker, second premium as reaper, $30. Atkin's Self-Raker, second premium as reaper, $30. Ball's Ohio Mower, second premium as mower, $30.

A trial of Reaping machines also took place near Eminence, Ky., by the Union Agricultural and Mechanical Association, on the 24th of June. There was a large gathering of farmers from all parts of Shelby and Henry counties present to witness the trial.

Four machines were entered for trial, viz: Manny's patent, wide cut, manufactured by H. B. Howard, Louisville; Manny's patent, narrow cut, entered by L. Jones; Atkins' Self-Raker, manufactured by R. Dutton, Dayton, Ohio; Kentucky Harvester, manufactured by Miller, Wingate & Co., Louisville, Ky.

The trial was chiefly confined to cutting wheat. About one and a quarter acres were measured off for each machine. As the several drivers entered strongly into the contest for speed, the quality of the work did not compare so favorably with that done by the same machines under the ordinary speed of the several teams, except Atkins' Self-raker, which seemed to lay the gavels in a more compact form than when the team is driven at a moderate gate.

The time occupied in cutting the acre and a quarter by each machine, was as follows: Manny's wide cut, 24 1-2 minutes; Manny's narrow cut, 26 1-2 minutes; Atkins' Self-raker, 25 1-2 minutes (deducting 3 1-2 minutes lost time); Kentucky Harvester, 29 1-2 minutes. The judges awarded the premium as reaper to Atkins' Self-raker; certificate to Manny's machine.

The work done by the two premium machines was so well done and so nearly equal that it was an extremely difficult point to determine which was entitled to the preference. The Kentucky Harvester being defective in the construction of its platform and the place for the discharge of grain, delievered the bundles in a very broken and imperfect manner.

Another trial of Harvest Machines took place adjacent to the show grounds of the Southwestern Agricultural and Mechanical Association, near Louisville, Ky., on the 26th of June. Although the trial was under the sanction of the above named association, the entire programme was planned by an interested party, who managed to have the trial take place on the same day as that fixed by the Indiana State Society at Richmond, giving competitors but three days public notice, and not until the only formidable competitor and manufacturer, H. B. Howard, of Lousville, had left to attend the Indiana trial at Richmond. The President of the association, Col. Hancock, was not present at the meeting when the arrangements for the trial were adopted, nor do we believe the other officers who were present were aware of the trial to be had at Richmond, or the object in having the trial upon so short a notice.

The watchfulness and care always exercised

by the worthy President of this association in protecting the rights of competitors, is worthy of all praise. In the absence of any of the regularly appointed judges of horses or other stock, when a competitor names an individual as a suitable person to fill such vacancy, it is his invariable rule at the fairs, to reject the services of the persons named, and make his own selection.

No competitor should be permitted to take part in the arrangements of any exhibition, to the injury of others, nor is it proper for editors of the daily papers, even for pay, to publish the one-sided reports of trials drawn up by interested parties. The object of these trials is to determine which are the best implements and machines for the farmer's use, and no report should go to the public calculated to defeat the object of the trials, and deceive many who have no other means of judging of the merits of the various machines on trial.

Henry and Shelby Counties.--We believe it is generally admitted that the young men of Henry and Shelby are among the most intelligent and industrious farmers to be found in any section of Kentucky. They usually take the lead in the operations upon the farm and know that the work is well executed. While at Eminence, attending the trial of Reaping and Mowing machines, we took occasion to call on several of the most prosperous farmers of the neighborhood, and found them just in the midst of the wheat harvest. The wheat is much better than we expected to find it, in view of the unfavorable season. The straw is generally of good length, heads long and well filled. It is neither effected by insect or rust. We were pleased to notice that the farmers begin to appreciate the importance of cutting wheat before it is fully ripe. Wheat, when cut while it is in the soft, or doughy state, and put immediately into shocks, will yield a heavier grain and more and whiter flour, and the crop is subject to much less waste in the act of harvesting. Harvesting grain in the early stage of ripening has long been practiced by the English farmers. When the stem becomes partially dry the circulation between the root and the head is entirely cut off, and under our usually dry, burning sun the juices remaining in the straw are rapidly dried up; but if cut and shocked while the straw is yet green, the circulation is still continued to the grain, adding to its weight, while the quality and whiteness of the flour is improved.

Upon the farm of Mr. James H. Drane, we saw the best formed two year old Osage Orange hedge, we have seen in Kentucky. Mr. Drane was just in the act of giving it the June pruning; the previous cutting having been done in the right manner and at the proper time, which are the indispensable requisites to a good hedge. We called at the farm of Mr. W. S. Helm, Secretary of the Union Ag. and Mech. Association, to see his vineyard. He has six acres planted with vines, now in the second season's growth. It was with some reluctance that he followed our advice in trenching the ground two feet and upwards deep, rather than plowing it. No further arguments are wanting in favor of deep tillage as a protection against drouth than to witness these vines at this time. Although there have not fallen three inches of rain upon them in five months yet they are in the most vigorous and healthy condition.

It is folly to attempt to plant a vineyard without first thoroughly trenching the ground from two to three feet deep. The extra yield in consequence the first year in full bearing, will more than pay the cost of trenching. A trenched vineyard properly taken care of, will remain productive far ages, while one planted in the surface soil untrenched, will go to premature decay in a very few years.

BUCKWHEAT.

Buckwheat is not properly named. It is not a wheat, belongs not to the family of wheat; is neither a blood nor a marriage relation of wheat. It is not properly a grain, can no more be ranked with the grains than with the grasses. It belongs evidently to the *knotweed* tribe, of which there are said to be twenty species in this country. This species is said to be a native of China. Three species are cultivated, the Notchweed, the Tartarian and the common Buckwheat. Its name is said to be derived from the German Buckweitzen—"Beechwheat," from its close resemblance to the Beechnut.

We are something of a believer in buckwheat for human food. Not that we would make it a very common, but only an occasional article of diet. It is a nutritious and cheap food, and is good for a change. It has many of the qualities of rice. It is best for cold weather. Nothing can ever take the place of common wheat and corn for the common bread of the country. But an occasional change from this is desirable. For one such change we recommend buckwheat.

A few years ago buckwheat had a bad name. It was only used by the poor, because of its cheapness. Good-livers would not quite stoop to eat the seed of *knotweed*. But times have changed. Appetite has prevailed. The tables

of the best livers, the opulent and the proud, smoke with the buckwheat cakes through all the cold weather.

It is now quite extensively used in all circles of society, and is yearly increasing. The total crop for 1850 was 9,000,000 of bushels in the United States. For 1855 it is estimated at 10,000,000. It contains about six per cent of gluten and albumen; 60 per cent of starch and about 30 per cent of woody fiber, gum, sugar, &c. Its composition shows it to be nutritious, and even to possess good fattening qualities.

[Written for the Valley Farmer.]

The Value of Agricultural Papers.

An agricultural paper is received and read by a practical farmer with profit and pleasure. Within it he is sure to find something new and useful, and his mind becomes stored with the practice and experience of many. Is he ready to avail himself of every opportunity for improvement?—there is no other method so well calculated to accomplish this object as a well-conducted agricultural paper. Improvement is to be gained from every page, and the man that reads catches the spirit of emulation and tries to be foremost in the race. He is therein taught the nature and properties of the soils and is enabled to cultivate them to the best advantage. By reading he is led to think, and these thoughts carried into action will bring pleasure, peace and comfort—the chain that binds families together. There are those who follow farming without the aid of books or papers; but such do not know nor comprehend the beauties of the pursuit which they follow. Their minds have got to see the pleasing light that science would afford. The reader of an agricultural paper may be known by the thrift and comfort around his home. It will be properly ornamented with trees, vines and flowers. Everything will be arranged with regard to convenience, and the spot will be a hallowed one to every member of the family. Herschell says, "If I were to pray for a taste that would abide with me, it would be a taste for reading." Every farmer that does not avail himself of the privilige of reading practical paper on agriculture, is behind the present age of improvement, unless observation and *naturally* fine taste counterbalance the deficiency.

Now can a man expend a dollar more profitably than by subscribing for the *Valley Farmer*? A good, *practical* paper—not a theoretical one, is needed by every farmer, and one of the greatest excellencies of the Valley Farmer is the practical views which it takes of all subjects pertaining to agriculture. J. W. W.

AGRICULTURAL SCHOOLS CONNECTED WITH ESTABLISHED COLLEGES.

There is now a general interest manifested throughout the Union, in regard to the establishment of Agricultural schools; a number have already gone into operation and others are in a state of progress. Interested in this general movement are the friends of Yale College who are now making an effort to purchase a farm, with the view to endow an Agricultural Professorship in connection with that college, where scientific and practical agriculture will be taught in all its various branches. We rejoice to learn that such a measure is proposed, and from the well known character and ability of that ancient and highly popular institution there is no doubt but the plan will be successfully carried out.—The establishment of a practical school of Agriculture in connection with Old Yale, will do more to elevate the character and dignity of farming to that standard to which it is justly entitled, than any other means that can now be employed.

The intelligent portion of mankind are now beginning to acknowledge that farming is not a mere drudgery, but is justly entitled to be classed with the most exalted sciences, and to follow it successfully, an educated intellect is as necessary as it is for any of the so termed professions.

Professor Porter, of Yale College is now engaged in carrying forward the proposed plan, which is to be simliar to that so successfully established in some parts of Germany.

Professorships of Chemistry, Geology, Minerology, Meteorology and Engineering already exist in Yale College, with a well furnished labratory, &c., all of which are necessary in the establishment of an agricultural school and which will be available here without incurring any additional expense.

Professor Porter, in alluding to the advantages that would, in a national point of view, result from the knowledge acquired at such institutions, makes the following estimate of the increased production to the country. In alluding to the number of horses in the United States, according to the estimate in the last census report, at about four and a half millions, an addition of one dollar per head to their value, as a consequence of a better knowledge of the principle involved in breeding and rearing of these animals would amount to *four and a half millions of dollars.*

The number of neat cattle in the United States is estimated at about 18,000,000. At a moderate valuation of $25 per head, an improve-

ment of one per cent would be equivalent to an increased value of $4,500,000.

On taking a broader view, an addition of one per cent to the annual produce of the whole country would amount to 16,000,000 of dollars per annum.

But should these institutions become general and a thorough education be deemed as essential to the pursuit of Agriculture as it is to other departments of business, we believe that the increase in the products of the country would be more than ten per cent, or in the aggregate exceed the sum of $160,000,000 of dollars annually, to say nothing of the increased happiness in the most important of all human pursuits, afforded to the people when guided by the light of science.

The Education of Farmers' Sons.

We were born on a farm. We were a farmer's son. The best lessons of our life were received on a farm. We love the farm and all that pertains to it. We regard it as not second to any worldly pursuit, not second in dignity, in importance and usefulness. Hence we feel that we have a right to speak for farmer's sons.

We say in the outset that all people should be educated, especially in a country like ours, where the people make the country, the laws, the customs, the states of society, and do everything that pertains to political government and social order. But most especially should farmers' sons be educated. The times demand it; the country demands it. There are governmental abuses to be reformed, there are great national interests at stake, there are questions of principle and political economy to settle.—There are producing interests to be represented in the legislative halls. There are real estate laws, boundary laws, partition laws, that affect almost wholly the farmer and his family. Then there are the great commercial interests of the country and everything that relates to improvement in travel and trade, all of which vitally concern the farmer. There are tax laws, the school laws, the laws directing the peace and order of society; there is the conduct of the general, the State and county government — How shall these things be rightly attended to so as not to jeopardize the farmer's interests?

Professional politicians are dangerous. We do not need a horde of hungry politicians to gather around every office like eagles around a carcass. We want the people educated in all the great duties of life,—educated to be wise, judicious, calm, high-minded—educated to love the country and honor it with virtuous and dignified lives—educated to believe as the first article of their political creed, "that righteousness exalteth a nation." A people educated will have a knowledge of politics equal to any emergency. Our fathers were not professional politicians, and they framed a government wiser than the world ever saw. They knew what they needed. If the people are wisely educated they will know enough of politics.—We want to raise our presidents, governors, legislators, judges and foreign ministers on our farms. We want to qualify farmer's sons for these posts of duty. We want at least to have the farmers completely represented in every legislature in the country. We want the whole governing power made up from the producing classes. They are the soul and body of the country, and farmers come in for a large share of representation. We want speakers, writers, editors, thinkers, actors, polished, strong-souled gentlemanly men from the heart of the farmers' family. Shall we have them? Say, farmers. We canno well do without them. If every man was educated enough to act a respectable part in Congress, we should have the whole people to choose from and could send our best men there. As it is, there is only here and there one educationally qualified to go, or serve his country in any way. Let us have farmers' sons educated and we can usher in a new order of things in the management of our government.

But it is not for political objects only that we would have farmers' sons educated. It is for their own good, that they may conduct their business with the strength and wisdom of educated minds, rear their families intelligently, and surround them with the comforts, opportunities, and excellencies of educated and refin d soiciety. Everything in our day calls for the education of farmers' sons. Agriculture is becoming a science. In all its departments it is being reduced to scientific principles. It is become a necessity that the farmer should be a scientific man, and possess a cultivated, well-informed mind. As a man it makes him nobler and stronger; as a citizen, worthier of trust, and as a farmer, more productive and trebly successful.

There is no place where intelligence pays a larger per centage than in agricultural pursuits.

The country and the world, as well as their own interests demand of farmers the education of their sons in the principles of sound learning, sound morality and sound life. Let those who are soon to come upon the stage of active life be well qualified to discharge any duty that may devolve upon them.

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The same happy results of improved farming are visible in this country, though perhaps not so clearly. Witness the results of labor-saving machinery, the improvement in fruit, stock, and fertilization. What may we not expect when the whole mind of the American farmer is awakened to all the improvements of the age; when every farmer becomes a thinker and makes his head help his hands; when steam power shall take the place of much horse power; when the best minds shall be employed in developing the resources of the soil, in enriching and beautifying the earth for the benefit of mankind? In this day every farmer should become an experimenter, or student in his profession, to find out the best way to make his head help his hands. In olden times farming was little else than toil; a strain of sinews, a bowing of the back to the burden of a drudge. Now, mind comes in to help the muscle. Improved farming is farming with the mind more than with the hands; it is making the mind lead in the work. The hands should not be idle. They were made to work. But the mind is the guide and must in the end rule. We look with joyful anticipation to the time when farmers shall be the most intelligent and honored portion of American society; when farm-homes shall be the abodes of refinement, taste, science, and all that embellishes and dignifies human life.

[Written for the Valley Farmer.]

Bois 'd Arc or Osage Orange---Brinley Plows.

Messrs. Colman & Byram, *Dear Sirs*:—I am indebted to some friend for three numbers of your paper, and I know not that I can better show my gratitude than by striving to help you—to help our fellows.

Mr. Byram I had the pleasure of meeting, and hoped to have spent a day or two with him, but owing to my companions returning south from Cincinnati, and the river falling fast, I had to make haste; besides, having spent some six weeks in travel through the southern States, I was very anxious to see the "friends I left behind."

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Logan Sleeper, on page 150, certainly gives to my mind the only correct direction how to proceed with Osage Orange for hedging. I began to prepare for this hedge plant some 12 to 14 years ago, but became dispirited, believing the Orange would not do, I cut up what I had, and can now show a better plant for hedging—the same plant—only with dozens, I might say, of sprouts from the sides of the roots remaining. I had arrived at Mr. Sleeper's conclusion accidentally, as indeed many of the best things I know have been taught me. Some men learn from hard sense, whereas I am to learn from experience. I have seen within sixty days, much hedging—some very nice specimens, but I would, were the hedges all mine, cut all off even with, or below the surface of the earth. I am satisfied that in twelve months the hedge would be double as good. Besides this, I would clip off with shears, say in June and September. to 6 or 10 inches and 10 to 14, so as to make the bottom of the hedge full. The next year clip down to 16 or 18 and 20 to 25, owing to

ment of one per cent would be equivalent to an increased value of $4,500,000.

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Mr. Byram I had the pleasure of meeting, and hoped to have spent a day or two with him, but owing to my companions returning south from Cincinnati, and the river falling fast, I had to make haste; besides, having spent some six weeks in travel through the southern States, I was very anxious to see the "friends I left behind."

With your *Farmer* I am well pleased, and had I no demands upon my time or purse but for agricultural papers, I would take all published in the United States. I think I contribute my full share in subscriptions, besides in various other matters, and am unable to do more.

Logan Sleeper, on page 150, certainly gives to my mind the only correct direction how to proceed with Osage Orange for hedging. I began to prepare for this hedge plant some 12 to 14 years ago, but became dispirited, believing the Orange would not do, I cut up what I had, and can now show a better plant for hedging—the same plant—only with dozens, I might say, of sprouts from the sides of the roots remaining. I had arrived at Mr. Sleeper's conclusion accidentally, as indeed many of the best things I know have been taught me. Some men learn from hard sense, whereas I am to learn from experience. I have seen within sixty days, much hedging—some very nice specimens, but I would, were the hedges all mine, cut all off even with, or below the surface of the earth. I am satisfied that in twelve months the hedge would be double as good. Besides this, I would clip off with shears, say in June and September. to 6 or 10 inches and 10 to 14, so as to make the bottom of the hedge full. The next year clip down to 16 or 18 and 20 to 25, owing to

growth and the branching of the plant. The Osage Orange on good land here, will turn stock the fourth year and be perfect.

I sent to Mr. T. E. C. Brinley, of Simpsonville, Ky., for a pair of his plows, have now used them two years. To the farmers and planters of the West I would say about the Brinley plow as follows: First, my claim to express my opinion. For sventeen years I have been testing plows, procuring from A. B. Allen, of New York, some half dozen different patterns, the Ruggle, Nourse & Mason cast plow; the centre draft Peacoks, March's and Hall's, and a variety of others too tedious to name—cast and wrought iron shares, steel, hard Sweed iron, made at home twenty-five at one time, and after testing one and all, I give the palm to Brinley, taking his plow as to strength, durability, quality of work and worth when worn out as steel for plantation repairs. Mr. Brinley has sent some fifty to Mississippi at my solicitation, and but one man has made complaint; he has more experience in conducting a high school than in plowing; his objection was, earth fell over the mould-board into the furrow—no objection at all, to me. I think the demand in Mississippi will be ten to fifty fold, this is vast in one year. Orders are coming in from those who used the Brinley plow this year, and from those who thought it cost too much. Southern men are more prone to buy a cheap article than are Western, so far as I can judge.

M. W. Phillips.

Edwards, Miss., June 1856.

[Written for the Valley Farmer.]

HEDGE FENCES.

Messrs. Editors:—The improper training or total neglect of Hedges of various ages, such as your star correspondent describes in Pike Co., Ill., can never amount to any argument against hedges, however common the cases may be. I find them in many places where I go. It would be a heavy task to report them all, and the attempt would profit nothing. Some of these neglected hedges are given to my charge to experiment upon, and in some future number I shall be prepared to testify as to how old the rows of trees may be when they can still be cut into the root and hedge fence made of them.

I am constantly watching out for facts and testimony with which to meet and dispel doubts and fears of every kind. The man who ventures with hesitancy the growing of some miles upon his farm, may naturally be expected to seek with eagerness for facts to confirm his hopes. From such, a letter of inquiry was lately addressed to Mr. Wm. Neff, of Ohio, and from his answer I beg leave to quote as I find it in the papers of that State.

May 27, 1856.

Dear Sir:—I have just received your note of yesterday, propounding some questions with regard to the utility of the Osage Orange as a hedge plant. It is now eighteen years since the subject first attracted my attention, and since that time not a year has passed without my having planted more or less. My first impressions were favorable to it above all other plants.

My experience since has more and more confirmed this opinion. Indeed I consider the Maclura of incalculable value to our agricultural country for fencing. The great distrust in the plant for the purpose has arisen from a want of knowledge and neglect in its cultivation.

Now this *eighteen year's* experience is nearer what many are waiting to hear than anything I can tell. Let it satisfy whom it will.

This season has been very unpropitious to hedge growers. Much of late setting has been dried up. Four miles of my last setting has proved *lost labor* and *lost plants.* The first setting which started with the earliest vegetation in the spring, are growing finely, and have been as little effected by drouth as anything that grows out of the ground. There is not only great encouragement, but imperious necessity for attending to this business in its proper season.

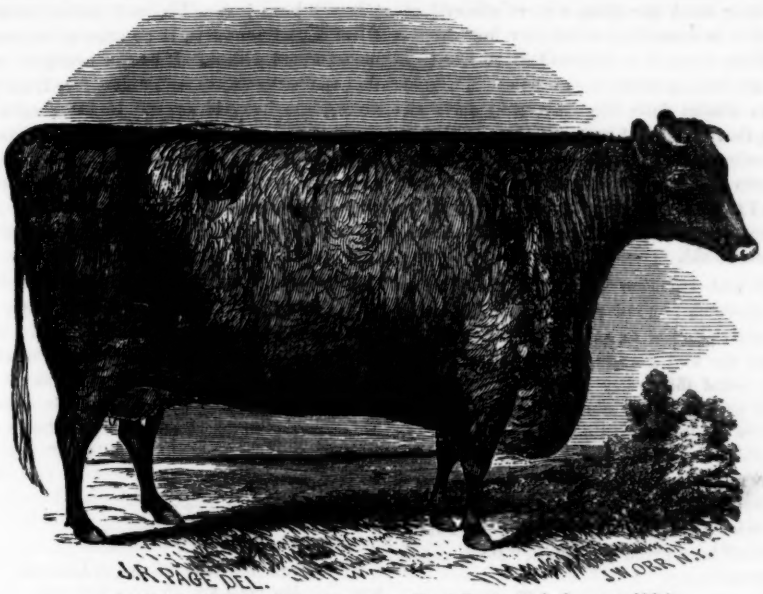
I think much loss and inconvenience will be suffered by all parties from contractors undertaking too much, and in districts too widely extended. Already is this being apprehended and felt in Illinois where the largest attempts have been made. This evil will have its run, and work out a remedy in time, and doubtless too, at proper cost.

A very practical man and sensible writer in a late Illinois paper, more than suggests and anticipates the remedy in a style of reasoning which I can hardly adopt.

"Osage Orange hedge will rapidly take the place of all other fences on our prairies, inasmuch as it is more protective, easier to be kept in repair, and the cost but trifling when farmers make their own. And I contend that every *good* farmer is not only competent to make a good hedge—but that he can make it a great deal better than most hedge growers will make it for him, as he being on the ground can attend to it at the proper time. The warrantee that professional hedge growers always give, that they will in certain time make a lawful fence, would not be satisfactory to me. For the same care at the *right* time can just as well make a hedge that will be impervious to chickens and small pigs as to cattle and horses."

My next article will be devoted to the subject of Fall Setting. The *safety* and *advantages* of setting plants for hedges properly in the fall.

Logan Sleeper.



NANNIE WILLIAMS—(See Am. Herd Book, Vol. 2, page 492.)

Nine years old. Owned by JEREMIAH DUNCAN, Paris, Bourbon County, Kentucky.

PEDIGREE.—NANNIE WILLIAMS took the first prize at Paris, 1855. Red roan bred by JEREMIAH DUNCAN, Bourbon Co., Ky.; calved May, 1846; got by Sir Alfred; dam, Helen, by Bertram 2d, (319;) Ruby 2d, by Bertram, (1716;) Ruby, by Young Sir Dimple, (971;) Daisy, by Wellington, (678;) Beauty, by Duke, (224;) Lucy, by young Comet, (905,) by James Brown's red bull, (98.) SIR ALFRED, bred by J. M. Kenard, Fayette county, Ky. Calved March 12th, 1839; was sired by Paragon; dam, Mira, by Dunn's imported bull Symmetry; first gr. d. Dunn's imported cow Red Rose, by Earnesty; second gr. d. Rosney, by Eryholme, (1818;) third gr. d. by Brompton, (54;) Paragon, by the Duke of York, imported; dam, Rose of Sharon, imported by Belvidere. SYMMETRY, bred by Henry F. Peacock, of Haddockstone, England, by Red Simon, (2499;) dam, Red Rose, by Haddock, now called Governor, (1077;) gr. d. Rosney, by Wellington, (680;) gr. g. d. Lilly, by Blaze, (75.)

Stock Raising Department.

[Written for the Valley Farmer.]

The Adaptation of the West to the Profitable Raising of Stock.

EDITORS OF THE VALLEY FARMER:—As one of your readers, I have been greatly gratified to see in your valuable journal, a department devoted expressly to stock. I am satisfied that Western and Southwestern farmers cannot turn their attention to any branch of agriculture which will be as profitable as stock raising.

In the first place, but very little help is required in stock raising. This, in my mind, is a very important consideration. A man can manage a large farm, if devoted to stock, and have all, or nearly all, the proceeds of his sales as clear profits. But the farmer who turns his attention to raising the common agricultural commodities, such as grain, hemp, &c., must have a large number of hands to assist him, which materially diminish the profits of his sales. Neither can a farmer successfully cultivate a large farm in raising grain, &c., so as to make it profitable. The care and anxiety in the management of a farm devoted to the cultivation of grain is also great. No person can have a large number of hands in his employ without much trouble and annoyance. This is well known to those who have tried it. But in the business of growing stock, the most of this trouble is avoided. The stock raiser has but little care on his mind. His business is pleasant. His fields are supplied with an abundance of grass, and he takes great pleasure in seeing his animals thrive. He can increase the number of his herd so as to compare with the size of his farm. Be his farm large or small, he has no difficulty in adapting the number of his stock to that of his acres.

Raising stock may seem a more pleasant occupation to some than to others; but there is something about it so independent, so free from care and toil, so gratifying to the eye in beholding an almost daily improvement in one's animals, that I confess I have a great partiality to the business. I have always delighted to read accounts of the herdsmen of the Bible. And when I now see a stock-raiser on a large scale, I almost intuitively associate him with the Patriarchs of old.

Sufficient attention is not paid by Western stock-growers to good pastures. Stock is too frequently allowed to subsist during the summer on the wild grasses, prairie grass, &c. I am satisfied that every raiser of stock would find it greatly to his interest to seed down his pastures in blue grass, timothy, clover, &c. In this climate pastures put down in blue grass can be made to sustain stock nearly all winter by refraining to feed it during the fall, so that when winter sets in there will be a good stand which will keep green and support stock nearly the entire winter.

But stock will well repay the farmer for good care during the winter. They should be provided with good shelter from the storms and fed on good hay and corn also, where it is easily and cheaply raised. The winters are not near as long as those farther north of us. There they have to feed their stock six months in the year —their pastures furnishing not a spear of grass as a general rule, for that length of time. It takes about all summer for the farmers of the northern States to provide their stock with a sufficient amount of food to last over winter. Three animals can be more cheaply raised here than one there. And consequently all must see how much more profitable business stock raising is here than there.

The production of stock, for this very reason, will be gradually abandoned in the northern and eastern States, and those States will depend for a supply upon the Western States. Mark the prediction. Every year the demand for beef cattle from the West is increasing, and it will continue to increase in a far greater ratio.—More anon. C. B.

Butter.—A writer in the New York *Tribune* asks the question whether *salt will preserve butter.* The *Tribune* says no, and objects to oversalting butter, either to preserve it or to make it weigh well. It will not preserve it, it diminishes its value if put in for weight. It should be salted only for the flavor. The Tribune says, "It will keep just as long and just as sweet as Olive oil, without salt, if no other substance is incorporated with it. It is the casein of milk that spoils the butter, and unless free from that no art can keep it sweet. Butter should be churned at 65° and immediately afterwards reduced to 40°, and the less it is touched by human hands the better. It must be worked cool, either with or without washing, as that is a mooted question, until absolutely free of buttermilk or particles of sour curd, and then just enough and no more salt added to suit the taste of the consumer. The salt must be pure, and one ounce to ten pounds will be sufficient. Then pack the butter in a cask of sweet wood or stone pot, so as to exclude the air, and so long as the air is excluded the butter will remain sweet." This view is no doubt correct. No device will keep butter sweet with particles of milk or curd in it.

Small Horses.

The arguments may all be in favor of great size, but the facts are all the other way. Large horses are more liable to stumble and be lame than those of the middle size. They are clumsy, and cannot fill themselves so quick. The largest of any class is unnatural growth. They have risen above the usual mark, and it costs more to keep them in position than it would were they on a level with their species. "Follow Nature," is a rule never to be forgotten by farmers. Large men are not the best for business; large hogs are not the hogs to fatten best; and large hens are not the best to lay eggs.—Extremes are to be avoided. We want well-formed animals rather than such as have large bones. Odd as it may be to the the theorist, short legged soldiers are better on the march, and officers say they endure hardships longer than those of longer limbs. On choosing a horse, take care, by all means, that his legs are short. If they are long and split apart like a pair of dividers, never inquire the price of the dealer. Make no offer.—*Indiana Farmer.*

There is much truth in the above. Every day's experience is teaching us that small horses are best. So of men. The close, solid build, of fine materials, is the one for strength or durability. A large individual of its kind is generally coarse-grained, loose-built, flabby, soft and tender. Small men are finer in make and mould, and stronger and more durable in proportion as they are finer. More depends upon the quality than the size of a muscle, a body, or an individual. Quality is the thing in horses as well as men, and you can seldom find the best quality in the largest specimens, they are not often so good. "The most valuable goods are done up in small parcels."

Sale of Col. L. G. Morris' Fine Stock.

As our paper goes to press before the 25th of every month, we were unable to furnish a notice of the sale of Col. Morris' Stock in the July number of the *Valley Farmer*, which took place at Mt. Fordham, Westchester county, N. Y., on the 24th and 25th days of June. Col. Morris is celebrated as an extensive importer and breeder throughout this country, and his catalogue contained not only a great variety, but some of the finest stock in the country.

It is said the attendance of people at the sale exceeded any ever held in this country, and what rendered the occasion one of greater interest, was the presence of not less than two hundred ladies.

The prices which the Short-horns brought were hardly equal to some former sales in this country of animals of their quality, but on the whole we believe the prices were satisfactory. The purchasers were from various portions of the country, and the dissemination of so many animals of superior quality over the various parts of the Union will result in great benefit to the country.

SHORT HORNS.

There were thirteen young bulls and bull calves sold, from five weeks to two years old, at prices varying from $110 to $675. The latter was for *Orpheus*, a roan, six months old, bought by Mr. Cripens, of Michigan. The celebrated imported bull, *Romeo*, bred in England by the Marquis of Exter, and imported in 1852 by Messrs. Morris & Becar, was sold for the low price of $600. Owing to his age (six years) and the high condition he was in, the competition among the bidders was not strong. It was understood when the purchasers left home to attend the sale, they were willing to bid any sum for Romeo under $1,500.

DEVON BULLS.

Six Devon bulls and bull calves were sold, at prices from $105 to $350.

DEVON COWS AND HEIFERS.

Of this class fifteen animals were sold, varying in age from seven weeks to twelve years old, at prices from $125 to $450, which last was for *Birth Day*, an imported cow twelve years old.

SOUTHDOWN SHEEP.

Ewes.—Thirteen Southdown ewes were bought by Mr. Samuel Thorne, of Dutchess county, N. Y., at prices ranging from $105 to $180 each. Six were bought by J. C. Taylor, of New Jersey, at prices from $80 up to $140 each. A number of others were sold to different persons, at prices varying from $45 to $100 each.

Young York, an imported buck, was bought by Mr. Thorne, for $400. A large number of others were sold, including lambs and yearlings, from $25 to $145 each.

SWINE—ESSEX.

Nine head of sows were sold at prices ranging from $25 to $75 50.

BERKSHIRE.

Thirteen head of sows were sold at prices ranging from $20 to $80 each. The remainder of the sows and boars, including the stock of old breeding boars, were sold at prices ranging from $15 to $45 each.

The whole amount of sales was between $16,000 and $18,000.

Raising Horses.

A farmer furnishes for the *Montgomery Ledger* the following statement: "Six years since J. D. Perkins, of Coatsville, Chester Co., Pa., bought a mare for $120. On the 14th ultimo he sold the mare and her family at public sale. The mother (with foal) now a cripple, brought $62; her first colt, five years old, $196; her second $169; her third $145; her fourth, an unbroke colt, $90: total, $671." Let farmers read this and think of the importance of raising their own horses and raising the best quality. Any scrub of a horse is now worth a hundred dollars—a good horse two hundred. A good mare will work gently on the farm two thirds of the year and raise a good colt. A half a dozen good mares on a farm, well worked, well cared for will afford a handsome profit on the money they will cost.

Hoven in Cattle.

One of our readers desires us to inform him what is the best remedy for hoven. The best way to *prevent* hoven is not to allow cattle, when first turned upon clover pastures, to remain more than one or two hours. No prudent farmer will allow them to remain longer. If they are allowed to remain longer they are liable to eat so much of the green clover that it ferments in the stomach, which creates a species of gas that causes them to bloat and swell so much as to endanger their lives, and this is what is called hoven. If the stomach can be relieved of the gas the animal immediately recovers. We have seen several remedies, the simplest and most effectual of which is to put a couple of slices of fat, salt pork down the throat of the animal as soon as it is found that it is affected. This is said to effect a cure in a very short time.

Another method is to put a rope into its mouth, tieing it over its head and behind its

horns, and then let the animal loose, and in its efforts to relieve itself from the rope it will throw up its head and allow the gas to escape, and speedily recover.

The following practical hints on the management of stock, &c., are from one of our Kentucky subscribers. The writer has our thanks for his valuable communication, and we hope he will again lay us under obligations for similar favors. It is from *thinking*, practical farmers that we solicit articles for publication. An interchange of views upon the details of farming is calculated to make our brother farmers wiser, happier, and more prosperous.

[Written for the Valley Farmer.]

RAISING HOGS, SHEEP, &c.

It has long been a question of doubt as to whether the raising of hogs can be made as profitable to the farmer, as the raising of other stock, or as raising grain, hemp, tobacco, &c., for market. As to raising the various kinds of stock, however, as a profitable means of farming, I must say that I have had but little experience; but am satisfied from observation, that at least two kinds of them may be raised profitably in conjunction with hogs, viz: young cattle and sheep. I am also satisfied that it will not take so large a tract of land, and of consequence, not so many hands to cultivate the same profitably, as it will in most other modes of farming; and in the reduction of the number of farming hands you will readily see that we have a heavy reduction of expenditures, and a consequent rapid increase of profits.

But first, it is very important, that to succeed well in this mode of farming, we should have every available foot of timbered land producing some kind of good, nutritious grass, as red clover, timothy, salim or blue grass: the last of which is certainly preferable as a grazing grass —but which, upon a character of soil like ours, does not succeed so well as either of the three first named grasses, and consequently does not produce so large an amount of grazing, with perhaps the exception of the clover. But I am inclined to think, from my limited observation, that the English blue grass will suit us much better for woodland pastures than either of the four first named.

Now my proposed course of production is this: The farmer first provides himself with twelve good brood sows, and as a natural accompaniment, a first rate boar, of such breed or breeds of hogs as he may prefer; never permitting his sows to have pigs at any other time than at or near the first of March and the first of September. Thus provided with, and carefully managing his breeding stock, he may safely calculate on an average of eight pigs to the sow. I am aware this will be said to be too high an average, but I know to the contrary, except with sows with their first litters, or those entirely too old for breeders. But with thrifty sows, of proper formation for breeders, long barrel, high broad hips, and deep, open flanks, you need not count on less than eight to ten pigs at a litter, twice a year. True there are sows, and fine looking ones too (entirely too high fed at breeding time) that seldom bring more than from three to five pigs; but this of necessity need not be so. Taking the average above given and we have 96 pigs, or allowing for loss in various ways, say 90 pigs. These produced the first of March and properly slopped and grazed on the rye and barley fields till the clover is ready, or nearly so, and then on the clover fields till time to turn on your first grain field, say rye, or wheat is better, two or three acres of early smooth wheat, till the rye may have full time to mature; then follow up by feeding a field of oats, if prepared, then a field of barley. I prefer leaveing my barley to the last for these reasons: that I do not think it more likely to injure in the weather of an ordinary season than any other small grain, and because by leaving it to the last, it will shed many of its beards, perhaps most of them; and I think it much more nutritious than any of the cereals. This course of feeding you will perceive brings us down to fall; and we seem not to have made any arrangement for fall and winter feeding; true, but every farmer knows that he must make this in his arrangements for feeding as he passes through the seasons of the year adapted to the providing of feed for the various seasons. Thus in the fall sow a few acres of barley more than he wants to feed down, which he wants for winter and spring use, and of course he will prepare and plant a small crop of corn, a few acres of which will be sufficient for winter and spring feeding for his thirteen hogs; for recollect, all must be sold, both spring and fall litters of pigs to make this kind of feeding profitable. But, in case he should think he had not enough grain to carry him through to grazing time, what can he do? Why, if he has failed to raise an acre or so of rutabagas, or sugar beets, or parsnips, he may in this case, procure from the nearest flouring mill a few loads of offal, which he will find a remarkably cheap feed in the way of slops, particularly if he has the root crops or pumpkins to feed with it.

Now let's see what our farmer has done.—He has sold from the farm 90 head of hogs weighing 160 lbs gross, at 3c. per lb., making $4 80 per head, or $432 total for the spring litter of pigs, and also 90 head of fall pigs weighing 60 lbs. each, at 3c. $1 80 per head, or $162, sum total for fall litter, amounting in all to $594. But some one may say this will not pay for the amount of grain consumed. Perhaps not; that will depend entirely upon how much they have consumed; and I am sure it will be very much less than many persons would suppose, for it takes but a very few acres of each kind of grain to suffice for the number of hogs here given. But then again, you have not been at the constant drainage in the way of expenses for cutting, gathering, threshing, cleaning and hauling your grain to market, which if it produces the $600 as above, would be minus at least $100 of it in the way of expenses.

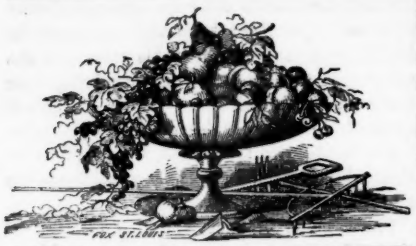
But this is not all. We started out to see if this kind of farming would pay the farmer; and like many others, we contend that that is not the only actual gain, which yields only dollars in return immediately; but I do contend that the actual increase in the yearly improvement of the lands is almost as great, if not greater than the gain in money in hand. For, see: each succeeding year, all things being equal, he may expect and correctly too, a handsome increase in his crops. Again it is not necessary to state that this should be the limited number of hogs, he may have more brood-sows, or he may buy some sows and pigs in the spring, even other hogs, and feed them as profitably as those he has raised, but he must calculate well his means of feeding.

Again; in this kind of farming, hogs alone must not be relied on for profit, although we see it pays well; but our farmer being pretty thrifty, and having his farm well stocked with small grain and grass, he provides himself with, say 30 head of spring calves in the fall, which he procures early enough to give them a good start, selecting the best matured calves he can get, at a cost of $5 per head, or $150: these of course he winters principally upon his grain and grass-fields, with a light additional feeding of grain or offal and the clover hay he has provided in the summer, which, with proper sheltering in the severe weather, is about all they want until grass is ready for them in the spring. This lot of calves will bring, in October, $12 per head, or $360, making a profit of $210, without any additional outlay for hire or hands upon the farm.

To this management, add the judicious selection and purchase of 100 ewes: say in the latter part of September; have them all bred to No. 1 bucks, making a desirable cross with the sole regard to mutton, having them bring their lambs in March and first of April. They will generally bring and raise about an equal number of lambs with themselves, allowing the usual number of twins to meet the usual casualties by abortions, deaths, &c.

This number of ewes, speaking of the best class of common sheep, will cost, say $2 per head, or $200, and may be wintered the same as the calves, or at a less, perhaps much less expense. The profit arising from them will be in the increase in the fleece and in the mutton; this will be then about as follows: say 100 lambs at $2 per head, or $200; and the wool from one hundred ewes, say two pounds per sheep, 200 lbs at 30c per lb, or $60, and 100 ewes fattened, at $3 per head, making $300: sum total $560, less $200, or first cost, netting $360. Thus you see our farmer may make $1164, counted in the usual way, with much less expenditure than it is possible to make the same amount with the same outlay and the same force requisite in any other mode of small farming; this all may be done with the aid of one hand, and on a very small farm; but this may be very much increased by the employment of a shepherd boy for a few summer months, to keep the sheep upon our wild woodland ranges, which keeps our sheep healthy and in fine condition; our land being high, rolling and airy, and of a character well adapted to raising sheep; produces many varieties of wild grasses and herbs, of which sheep are very fond and upon which they thrive very fast. But I did not start out to argue the advantages of sheep or cattle raising; but in connection with them, to prove that the raising of hogs may be made profitable, especially to the small farmer, and to the farmer in general. Whether I have succeeded or not let those judge who read. I have endeavored to place the first cost of stock, at a fair but moderately high rate, while at the same time I endeavored to fix the price of sale at as reduced and moderate rates, as in my judgment I was warranted in doing. SUBSCRIBER.

PARIS, BOURBON COUNTY, KY., STOCK SALES FOR JULY.—The sales of stock in Paris on County Court day, were good, though hardly so well sustained as at last court day. About 1,500 head of mules, besides other stock, were sold. Sixty mules, two years old, were sold at $144 per head; others at $230, $120, $100, and as low as $80 Common cattle at $43, $40, $30, $28, and down to $12. Horses from $260 to $17. The whole amount of sales of stock for the day, was about $130,000.



Horticultural Department.

[Written for the Valley Farmer.]

CURCULIO AND CATERPILLAR.

Messrs. Editors :—I shall beg leave to dissent somewhat from the remarks relative to the Curculio, on page 160 of the May No. of the *Valley Farmer*.

While in an apple tree some fifteen feet from the ground for the purpose of grafting, about the first of May, and before the buds had swelled much, I found one of the chaps up there, traveling—taking "views a foot." Whether he had just left the larva state, or had spent the winter in his perfect form in some crevice of the old tree, I shall not pretend to say; but this much is quite certain, he had his perfect shape, and no doubt was ready for operations on plum or apple, long before any of his favorite fruit was even in blossom. Perhaps it may be said that I was mistaken in his identity; that is possible, yet I think not. I know his countenance pretty well, and scanned him closely. He had the humps on his back, beak, color and all. In short, if he was not a genuine curculio, he was very unfortunate in doning habiliments so closely resembling one, for his character as well as body suffered severely in consequence.

The caterpillar referred to in the same article, is the same, no doubt, that we have here (Montgomery Co., N. Y.,) but I hardly think that any degree of cold will effect them, as supposed. Why, we had the mercury one time 28° below zero, several times 20° or more during the past winter., and it has not hurt them in the least. They hatched out just at the right time, and have grown finely ever since, spinning *beautiful* nests in many orchards, and any number in the wild cherry trees.

Their eggs seem calculated to withstand all kinds of weather, rain, snow, hail or ice; they are deposited, in this section, some time in July, near the end of a small twig, a cluster often encircling it for an inch in length; each one standing with its end on the bark, and packed *closely*; over the whole is a coating of glue or varnish, weather proof for about ten months of the year. When the weather becomes warm enough in the spring to start the buds into leaf, it is just the right temperature to hatch these. This appears to be the most critical period of their existence; at least I never knew the whole race so nearly swept away as once happened in the following manner. We had a cold turn of freezing winds immediately after they were hatched, before they had their nests ready for a protection. The consequence was, that with one exception, I did not discover them in a single orchard that season; that was in a small one on a steep side hill, sloping to the north. This cold position no doubt had kept them unhatched till after the fatal frost. That frost was worth to the country thousands of dollars. They had increased to a frightful extent. Some neglected orchards for the few preceeding years had been literally stripped of their foliage, and this year the deposit of eggs exceeded anything before. I counted something like a dozen bunches on one small branch. But since then, some ten years, they have never regained their former strength, yet they are gradually on the increase.

After a cattarpillar attains its growth (some time early in June), it leaves the tree in search of a place for spinning its cocoon, being a species of silk worm. Should the weather be cold and wet at this time I think it would be fatal to a portion. After winding up it remains about three weeks, when a redish brown moth, an inch in length and three eighths in diameter bites its way out, and is ready in a short time, like the moths of the silk worm, to deposit its eggs for the next year's brood, performing the whole operation in the night. Every cluster of these eggs removed at any time during the nine or ten months, must as a consequence prevent a nest of these depradators. M. Quimby.

St. Johnsville, N. Y.

Mr. Quimby has our thanks for his views and observations upon these destructive insects.—We hope he will be able to furnish us with still further facts relating to the character and habits of the curculio. We find from the experience and observation of this spring, that it requires something more than intense cold in winter, to destroy the eggs of the caterpillar—and it is more than probable that their destruction referred to by us in the May number of the *Valley Farmer* was owing to some sudden and severe change just at the time of hatching, as in the case mentioned by Mr. Q., at all events they have never been as abundant since, until this season, when they were more numerous than

they have ever been known before—entirely defoliating nearly every wild cherry tree, and in many instances sweeping every green leaf from the apple trees.

With a little care many of these may be destroyed while in the egg, and if taken early there is no difficulty in destroying the entire nest, shortly after the worms hatch, by runniug a bunch of small twigs, attached to the end of a light pole into the nest, and with a slight twist wind the worms and nest up together and bring them down.—Eds.

The Exhibition of the New York Horticultural Society, was held the last of June, and presented, it is said by the New York papers, a fine opportunity for the lovers of the beautiful to regale their eyes. The exhibition of flowers was said to be fairly dazzling. Among the curiosities was a *resurrection plant* which has the curious property of opening from the bud when placed in the water, and of refolding its petals and becoming a bud again when taken from the water. The one exhibited was brought from Egypt ten years since and has passed through the wonderful transformation many times.—Apricots, pears and nectarines from Georgia were among the fruits. The strawberry collection was very fine. Some of the best specimens measured over four inches in circumference. A single strawberry plant, less than a year old, was shown, containing *two hundred and thirty-one* berries. Longworth's prolific seemed to be the favorite and took the first prize. At the close a spirited address was delivered by Rev. Dr. Osgood, on the Philosophy of the Garden. Very useful are such societies. We need more of them.

Apple Borer---Salt as a Remedy.

We have seen an article going the rounds of the agricultural papers, recommending salt, or old brine, for the destruction of the borer in apple trees. The writer says that a mound of earth should be raised some inches around the stem of the tree, to that part infested with the insects, and then saturate the earth with old brine or salt water.

We have some doubts of the efficacy of this remedy, for if the water be sufficiently impregnated with salt to kill the worms, it will be very likely to prove fatal to the trees. Some kinds of trees will bear a larger quantity of salt than others; for instance the plum tree will not be killed if the soil is moistened with water of the strength of sea water, but not so with others.

[Written for the Valley Farmer.]

The Green Newtown Pippin.

Messrs. Editors:—I notice that a published extract from a letter of mine has called forth a request from your esteemed correspondent, Mr. J. Mallinckrodt, to publish all that I may know about the Green Newtown Pippin and its relative qualities compared with the Yellow Newtown Pippin and the Jeneton or Rawles Janet.

I take pleasure in complying with the request of Mr. Mallinckrodt, because I have a particular respect for persons seeking to propagate and encourage the production of fine fruits. As an additional reason for complying with his request, it will be bringing to the notice of Missourians an apple of such celebrated and fine qualities. There is another reason for directing the attention of Missourians to the apple, which is, that when I have enquired of intelligent farmers why they did not engage more extensively in the cultivation of fine fruit, and produce it as an article of commerce?—they have replied, that they have been deterred from so doing because of the great competition they would encounter in the markets, from the extensive orchards in nothern Illinois. Now I observe from the proceedings of the Northwestern Fruit Grower's Association, that the Green Newtown Pippin does not succeed on the soil of northern Illinois; and as it does on the limestone soil of Missouri, it follows that no Missouri farmer possessing such soil should be longer deterred from producing the apple—as no other apple, at a certain season, (say from April to July) can successfully compete with it in any market.

I learn from the correspondence contained in the Patent Office Report, that as grown in New York, it is a successful competitor in the city of New York, with the Roxburry Russett and Baldwin as grown in the States of Maine and New Hampshire, and more than a successful rival of those apples in the markets of London and Paris—sometimes selling in the city of London for $12 per barrel. The apple appears to be peculiarly adapted to the limestone soils, between the parallels of 37 and 42 of north latitude. It is grown as far south as the 37th, in the State of Kentucky, and further north than the 42d in the State of New York. Although I have known the apple for more than thirty years, yet I cannot speak advisedly as to the nature and character of the tree (never having cultivated it) further than to say that it needs a deep, rich soil and high culture; and under such culture I believe it will be an annual bearer, as I have known it to be an annual bearer in

Virginia and in thiis State also. While being hauled from Rappahannock Co., to Fredericksburg, Vairginia, and late in the season, after all other winter apples had disappeared, we have received from the wagon by the barrel, without a single apple in the barrel having a speck or any appearance of decay, and possessing all its freshness, with its peculiar rich flavor.

Mr. S. Grove, of this county has informed me that he has kept the apple as late as July, with all its desirable qualities. And in the spring of 1854 I ate of a specimen grown in Mr. B. Lawless' orchard, of this county, and a finer apple I never tasted, not excepting Pryor's Red. Its great superiority over other apples is, that while losing its acidity, it retains its freshness and fine flavor.

Some pomologists have put its season from December to June. But in my opinion it should not be taken from its place of keeping, for use, before March. The trees that I saw in Mr. Groves' orchard may have been younger, but they were as large and appeared more thrifty than the Janet in the same orchard. They are longer coming into bearing than the Janet. The Janet is an annual and profuse bearer, and as Mr. M. says does not spread decay from being bruised; and the largest size with bright red on one side and rich yellow on the other, are fine flavored and noble specimens of the apple. But for one tree producing the finest, there are great numbers that are greenish white dwarfs, entirely worthless; and like most other apples, it loses flavor on the appearance of spring, and when kept in the ground or in a damp cellar, it imbibes a musty and earthy taste. And I think, when at its best it cannot compare with Pryor's Red of the same season. Nor do I think it can compare with the Winesap as grown in this locality. Nor is it as large as the Pippin, or the two last mentioned.

On the 23d of January of this year, I ate some Fall Pippins which were quite sound and in fine keeping condition; and in my opinion a much finer apple than the Janet. The Janet at this time is certainly the most popular apple in the State. But when Pryor's Red, Fall Pippin, Belleflower, Winesap, Rome Beauty and Newtown Spitzenburg, shall become as well known as the Janet, with the Janet they will be ruling princes for the winter months and until the approach of spring, and Pryor's Red chief among them all. On the approach of spring, the Green Newtown Pippin

> Will ascend the throne,
> And reign supreme,
> Sole monarch of the realm.

I know very little about the Yellow Newtown Pippin.

Thomas, in his American Fruit Culturist, places the Green Newtown Pippin in the very foremost rank of standard apples, and puts the Yellow of second quality only. I have eatn the Yellow in January, when it partook largely of the peculiar flavor of the Green. I have also eaten of it about the last of April, when it had become stale and flat and destitute of such flavor.

And now, Messrs. Editors, if I have not already occupied too much of your space, allow me to say something about the profits of fruit.

I venture the assertion, that when the Newtown Pippin becomes as well known in Missouri as it is in the city of New York, that at a certain season of the year it will command as much money (except in times of a scarcity of breadstuffs) as a barrel of superfine flour. The best quality of Pryor's Red and Fall Pippin will now sell in some towns on the Missouri river, for one dollar per bushel, and why should not as good or better apples sell for more, at a later season? Now it requires as great an outlay of labor and capital to produce and prepare for market, one acre of wheat as it does two of apples. Say you get six barrels of flour from the acre, at $6 per barrel, would be $36.

Say you get fifty barrels of apples from the acre, at $3 per barrel, would be $150, making a difference of $114.

Every farmer that cultivates fifty acres in wheat and fifty acres in corn, can cultivate ten acres in winter fruit, as the gathering season of the fruit does not conflict with the seeding and gathering season of the other crops.

Should we ever get a Railroad to the Pacific, and the Green Newtown Pippin become as well known in all the markets of Western America and Eastern Asia, as it is in New York, not fifteen millions of dollars worth would supply the demand. What a field of wealth would be spread out to the most profitable, the cheapest, the easiest and most delightful labor. T.

Saline Co., Mo., Feb. 1856.

Rock Maple.

The rock, or sugar maple is one of the most beautiful and vigorous of our forest trees. As a shade and ornamental tree it is unsurpsased. Its growth is rather slow, but sure and strong. It is cleanly, has a dark, rich foliage, and may be easily raised from the seed. The seed planted in the fall, just in the top of the soil, will vegetate in the spring. They can be procured in many places in Illinois and Missouri.

American Pomological Society.

SIXTH SESSION.

In conformity with a resolution passed at the last meeting of this National Association, the Sixth Session will be held in Corinthian Hall, in the city of Rochester, New York, commencing on Wednesday, the 24th day of September next, at 10 o'clock A. M., and will continue for several days.

Among the objects of this meeting are the following:—To bring together the most distinguished Pomologists of our land, and by a free interchange of experience, to collect and diffuse such researches and discoveries as have been recently made in the science of Pomology—to hear the reports of the various State committees and other district associations—to revise and enlarge the society's catalogue of fruits—to assist in determining the synonyms by which the same fruit is known in America or Europe—to ascertain the relative value of varieties in different parts of our country—what are suitable for particular localities—what new sorts give promise of being worthy of dissemination—and, especially, what are adapted to general cultivation.

The remarkable and gratifying progress which has been attained, of late years, in this branch of rural industry, is, in no small degaee, attributable to the establishment and salutary influences of Horticultural and Pomological societies. It is, therefore, desirable that every State and Territory of the Union should be represented in this convention, so that the advantages resulting from this meeting may be generally and widely diffused. Held, as it will be, at a convenient point between the Eastern States and the Western, easily accessible from the South, and also from the Canadas, it is anticipated that the attendance will be larger than on any former occasion, and the beneficial results to the American farmer and gardener proportionably increased.

All Pomological, Horticultural, Agricultural, and other kindred associations of the United States, and of the British Provinces, are requested to send such number of delegates as they may deem expedient; and nurserymen, and all other persons interested in the cultivation of fruit, are invited to be present, and to participate in the deliberations of the convention.

In order to increase as much as possible the utility of the occasion, and to facilitate business, members and delegates are requested to forward specimens of fruits grown in their respective districts, and esteemed worthy of notice; also, papers descriptive of their mode of cultivation—of diseases and insects injurious to vegetation—of remedies for the same, and also to communicate whatever may aid in promoting the objects of the meeting. Each contributor is requested to make out a complete list of his specimens, and present the same with his fruits, that a report of all the varieties entered may be submitted to the meeting as soon as practicable after its organization.

Packages of fruits and communications may be addressed as follows: "*For the American Pomological Society*, care of W. A. REYNOLDS, Esq., Chairman Com. of Arrangements, Rochester, N. Y.

Delegations will please forward certificates of their appointment, either to the above or to the undersigned at Boston.

Gentlemen desirous of becoming members of the society, and of receiving its transactions, may do so by remitting to the treasurer, THOMAS P. JAMES, Esq., Philadelphia, Penn., the admission fee of two dollars, for biennial, or twenty dollars for life membership.

MARSHAL P. WILDER, Pres't.
H. W. S. CLEVELAND, Sec'y.
Boston, Mass., March 15, 1853.

[Written for the Valley Farmer.]

WINTER APPLES.

MESSRS. EDITORS:—In the January number of the *Farmer*, I find an article from the pen of Mr. Mallinkrodt, claiming the superiority for the Jeneton, or Rawle's janet, over other winter apples, as combining more desirable points than others. Although his name stands high, and deservedly so, as an orchardist and nursery-man and it may be presumptuous in me to differ from such authority, still I think there are other varieties equally as good bearers, as well adapted to our climate, as good keeping, and decidedly superior in flavor and richness. While the Jeneton tree is young, and before it produces full crops, the fruit is large, good flavored, and with a saccharine taste; but so soon as the tree becomes of a good size and an abundant bearer, the fruit diminishes in size, becomes knotty, and instead of mellowing by keeping, becomes tough and spongy, devoid of flavor—in fact, no longer deserving a place among excellent fruits. In rich lands it is a poor fruit; whether our hills and black jack lands would suit it better, I am unable to say, but am disposed to think it would increase its qualities both in flavor and size. I know several orchards where the trees are large, and the fruit indifferent. What changes great care and judicious management might effect, I am not prepared to say. There are some good qualities about them, such as keeping late,

and from their slowness to blossom, they are not liable to be killed by late frosts. My favorite winter apple is the Vandervere, and even if limited to one sort, it would be my choice. It requires a rich, light, sandy soil, and it would be well adapted to our prairie lands. I have some specimens before me, as I write, from a neighbor's orchard, both excellent in quality and beautiful in appearance. They are medium size, yellowish ground, streaked with red on the shady side, but of a rich red, with scattering grey spots on the side exposed to the sun. The flesh is a golden yellow, crisp, tender, and decidedly rich and juicy flavor. So far as my observations extend, the tree is as thrifty in growth, as hardy in its nature,, and one season with another, as certain a bearer as the Jeneton. The yellow Newtown Pippin I think is superior to the Jeneton, is no more subject to being spotted, and has been kept until the fourth of July.—There are several other varieties that deserve not only mentioning, but to do them anything like justice, should be eaten. But as my communication has already taken enough room, I will defer their notice until another time. I would like very much to see the opinions of orchardists and amateurs in the fruit line, concerning the qualities of their favorite varieties.

Yours Respectfully, JAMES B. WALKER.

St. Louis County, March, 1856.

[Written for the Valley Farmer.]

DWARF PEAR TREES AGAIN.

MESSRS. EDITORS:—In my article in the July number of the *Valley Farmer*, it was not my intention to discourage the cultivation of dwarf trees in gardens and lots where room cannot be spared for standard trees. But it was my intention to discourage the cultivation of pear on quince, with the tree so planted out, that the graft would be entirely above ground, as it would seem has been the too general case throughout the country. I admit, that as my article reads, I might be understood as condemning dwarf trees of any sort, but this is not the case, for I have heretofore recommended to my customers to dwarf their trees when necessary, by root pruning, according to the directions of Mr. Rivers, an eminent English nurseryman, as quoted by the late A. J. Downing in his book on Fruit and Fruit trees.

His directions are, to dig a trench about eighteen inches deep around the tree, at a greater or less distance from it, according to the size of the tree. This should be done in November, with a sharp spade, so as to cut the roots as smooth as possible, and the trench filled with rich mould. The side limbs should be cut in, to correspond with the length of the roots. This process checks the growth of the limbs, and causes them to form fruit buds. And, says Mr. Downing, "by following this practice every year, he (Mr. Rivers) not only throws his trees into early bearing, but forces apples, pears, and the like, grafted on their own roots, to become prolific dwarfs, growing only six feet apart, trained in a conical form, full of fruit branches, and producing abundantly." This practice of root pruning I consider altogether better than grafting on quince, and planting out, so as to force the pear to draw its nourishment from the earth through the quince roots. But if cultivators will plant out pears grafted on the Angers quince, according to the practice of Col. M. P. Wilder and other successful Horticulturists, so deep that roots will shoot from the pear, so that at last it can be established on its own roots, independent of the quince, then I do not know but that this is the best way, all things considered, for commencing with a pear tree to be cultivated either as a dwarf or standard.

In an address that Col. Wilder made before a Legislative Agricultural meeting in Boston last spring, he says: "The pear upon the quince should be planted deep enough to cover the place of junction three or four inches below the soil, and then the pear will throw out roots for itself, and the result will be, not only early fruiting, but also strength and longevity."

Early fruiting is very desirable for standard as well as dwarf trees, when it can be induced without a drawback upon the strength and longevity of the tree. I believe it has been the general opinion of Horticulturists heretofore, that whatever would produce premature bearing in a fruit tree, would also produce premature decay. But it seems that planting out pear on quince in the way above recommended, will give us the early fruiting of the dwarf and the longevity of the seedling tree. The gardener who cannot afford his tree but six feet of ground, must remember that if he plants, manures, and cultivates his pear on quince as he ought, that in a very few years it will be changing from a dwarf to a standard, and must be kept a dwarf by root pruning. And let all cultivators of fruit consider that we may reasonably expect as much advantage in getting most other varieties of fruit trees, *first or last* "actually a growing on their own roots," both as it regards the quality of the fruit, or the long life of the trees, as we do in the case of pear trees.

JOHN SLATER.

St. Albans, Ill., July, 1856.

The Home Circle.

Influence of Amusements in the Formation of Character.

Whatever will serve as a relaxation from toil and the more exacting duties of life, we may count among the amusements. Any pleasant occupation becomes recreation, and all our faculties may in turn furnish it, if exercised at pleasure and so as to relieve each other. When one faculty is weary of exertion, the unemployed ones will be fresh and ready to act. To the man who has been at work with his hands, the exercise of his mind will afford relaxation; and to him who has been engaged in some great mental effort, manual labor may seem a pleasant recreation. To prove that this is a law of our nature, we need not take into consideration the moral and spiritual powers, yet we find the same law applying to *them*. The worn-out laborer, the perplexed man of business, the philosopher's thought-weary brain, may all soar aloft into the sublime region of religious contemplation and find rest and peace.

Not only do we find the necessity for recreation acknowledged and provided for in the reciprocal action of all our faculties, but this is also done in an especial manner in the sensitive parts of our nature.

The senses in subjection to the intellect, enable us to acquire a knowledge of external objects, and at the same time provide a pleasant occupation, which requires no great outlay of energy, or fixedness of purpose. We may however, distinguish among them, with regard to their fitness in this respect. The senses of seeing and hearing hold a higher rank than those of taste and feeling. It is to the eye and ear we owe the most refined of our pleasures.—Through them we discern most of the beauties of nature—the varied and unrivalled coloring of foliage and flowers—the singing of birds, and pleasant murmuring of streams. Yet Nature is revealed to every sense. Art is more exclusively indebted to these for appreciation. No other sense could present to us as does the eye, the grandeur of Architecture, the beauties of Sculpture and the divine art of Painting; none but the ear, the harmony of Music and the charm of Eloquence. These are more nearly allied to the intellect than the other senses, and not only afford the most appropriate amusement for relaxation from mental exertion, but leading up by a natural gradation to such employment, help form a habit and love for them.

A taste for these refined pleasures becomes also an additional safe-guard to virtue, for it removes many of the temptations to vice that fall in the way of those who have no elevating amusement with which to fill their leisure hours. This result, which is perceptible in the lives of individuals, makes itself still more remarkable in the histories of nations.

In the favorite amusements of a people we find an index to its character—not entirely because the character has determined the amusements, nor because the amusements have directly formed the character—but both these influences have acted and reacted upon each other until a correspondence has been effected. It will not be difficult to maintain this theory by reference either to past nations or existing ones.

It is strikingly exemplified in the Greeks and Romans, the two nations which stand out most prominently from the background of the past, and are most fully delineated in History. Among the earliest institutions of the Greeks were games and festivals in honor of gods and heroes; and over these were shed the refining influences of music, poetry, and eloquence. Soon Painting, Sculpture, and Architecture brought the spirit of beauty into the homes and hearts of the people. They walked through their streets surrounded on either side by wonders of art from the pencils of Zeuxis and Parrhasius, or by the god-like marbles of Phidias; and in the Greek of the age of Pericles, in the polished and enlightened citizen of the most renowned nation of the world, we behold the *man* whom these influences moulded.

War was both the business and sport of the Romans, and all their amusements were governed by this ruling passsion. They "compassed seas and land" to procure wild beasts to tear each other in pieces, for their gratification at public festivals, and even human beings, slaves or criminals were thrown into the arena to be slaughtered. Yet in the first years of Rome, her citizens were pure and simple in their manners, brave and upright in their characters, and when we compare them with the monsters who were her rulers during the decline of her power, we see the terrible effect of substituting *passion* for *sentiment* in the amusements of a people. No softening influences from the fine arts were shed upon the Romans. They could not conquer them though they despoiled Grecian temples to deck their own. They had no Painters or Sculptors whose names were worth preserving.—Their poets came not in the fresh, young life of the Republic, but with the enervation of exhausted passion. In architecture they built after the

model of their own granite-like characters—time-defying structures.

We may admire the iron firmness and indomitable energy of the old Romans, but it does not enlist our human sympathies so much as the more gentle, graceful character of the Greek, because *it is not so human.* Not alone passions and intellect have been bestowed upon man, but also *feeling* and *imagination*, a love for the beautiful, and a power of *creating* beauty. As verdure in our paths, as flowers by the wayside, these lighter fancies have been given us.

But let us look at the end. When Rome fell all the horrors that cruelty, corruption and tyranny could contrive, were heaped upon its inhabitants. But when misfortune came to Greece the gentle ministerings of poetry and art did not desert her. Long after national glory had departed they lingered still. Oppression could not drive them from their first and last loved homes, and Greece *enslaved* was not *degraded.*

Our own country is forming its national character, and the amusements of the people must be a part of it. Every individual influence will weigh in the scale, which perhaps just trembles on either side, and the responsibility of each one should be felt. We may all do much to decide whether the passional nature that finds its delight in the horse race, the pugilistic encounter, or the excitement of passion and tragedy in low theatres, shall prevail over the cultivating powers of literature and art. Not less does this responsibility rest upon the many, who engrossed with the cares of business, look indifferently on both sides, regarding all amusements as child's play, soon to be left for more serious things; but though left, its impress upon the character will remain while the individual life lasts, and even then it will not pass away, but stamp itself upon the national character.

The war which some would wage against all amusements, succeeds only against innocent pleasures, and leaves the field open for the degrading. But if it were possible they should destroy *all*, what would life be?

They may tell us "life is *real*, life is *earnest*," yet our lives *must* be so. Cares and responsibilities without our own efforts will make them so. Yet the way may seem long and we may sometimes grow weary, should we not rather rest in some fragrant shade, or on the banks of a pleasant stream, than by the hot and dusty roadside? If we will but keep the heart and fancy fresh and green we may find such pleasant, resting-places all along life's pathway.

"ELSIE," whose writings we have read and admired so much in other periodicals, has sent us the following beautiful article. No. 2 will appear in our next.

Children Love Nature.---No. 1.

"There is one heritage I envy you, Ellie," said sister Em the otheir day, "and that is the memory of a Rural Home,"

"What poetry is there in my childish recollections of interminable fronts of stone and brick and endless side walks and cross walks; long rows of back yards, each one like its neighbor, with its miniature grass plot, narrow flower borders and high walls? But these recollections are gaily checkered by many a summer vacation in the country."

"Yes, happy I am, Emily, that my first impressions of this beautiful earth were formed in a lovely, rural home. Can I ever forget the spot where I was born, and where the first years of free, happy, careless, childhood were spent?—No! With older years, more fragrant and vivid its pictured scenes range themselves before my mental vision. The locale of that home was a large corner lot in a new village in a southern State. The first floor of the house was level with the ground and arranged for the purpose of dispensing with those unsightly appendages, the numerous cabins for kitchen and servants, which make every southern home resemble a distinct settlement. The next was the principal floor, and reached by flights of steps from without as well as within. These out-side stairs need make in the northern house-wife's mind, no visions of snow and ice to be removed every few days, for half the year. The large pillars of the front portico were twined with evergreen montifloras, their immense clusters of tiny, perfect roses, varying in their different stages from deep pink to white, and beautifully contrasting with the thick, glossy, deeply serrated leaves which adorned its graceful sprays. A back verandah was embowered with fragrant, evergreen honeysuckles, whose coral-like branches and petioles gleamed among narrow, pointed leaves of deepest green, and whose variegated flowers sent their perfume through the house.—There too, were woodbines; and the passion-vine threw out its delicate feelers—curling tendrils, wherever it chose, up to the very roof. About the windows the white stars glistened amid the graceful foliage of the jasmin, and in filial contiguity was its sister with the yellow tea-scented flowers. My mother seemed to love every loveable vine, and all around they were encouraged to develop their gracefulness and beauty. In front of the house stood two fine old oaks, and just beyond, a terrace, which

made a few steps of descent to the gate; from the gate, two or three more steps led down to the street. This descent of ground, gave from the high porch a fine view of the village, wherever it could be seen through the trees. Along the terrace, just sheltered from the sun's rays by the overhanging boughs, were ranged the more tender plants, that required house protection at mid-winter. Rows of graceful China trees, whose yellow berries the robin is said to eat and become intoxicated upon, borders one walk. Another was bordered with China roses, which in that genial climate, rested from their continual blossoming but two or three months out of the twelve. The rose was a favorite of my mother's, and every variety procurable in that newly settled district was in her collection. But these were not her only flower treasures. From the earliest spring flowers—the borders of bulbs that flowered in February, to the asters and chrysanthemums and all late blossoming plants, which the frosts of mid-winter scarcely nipped, there was a constant succession.

"Right from all this rural loveliness—with an ardent love for Nature—almost wild and uncurbed in my romping freedom in her haunts, by clear brooks, and up and down the woods and groves that surrounded this village but just sprung up in the forest—I was shut up in a dusky, smoky, western city. Oh, how I pity the little child, homesick and longing for the country. I never shall forget how I pined for it. At an upper window I used to sit hour after hour and gaze across the Ohio, upon the Kentucky hills, whose thickly wooded sides were *then* in many places unmolested by the woodman's axe. Oh, if I could but get there! But mama was an invalid, and papa all day at his office, and I could only sit there and foster that dangerous habit of *day dreaming*. And I did dream, and weave about me an ideal world, like to the verdant, shady, flowery haunts of my past years, and in it I tried to forget my surroundings. When it came about that I could take a rural excursion of a day or a few weeks, I was beside myself with joy.

"Now, when my little girls come to me with—'mama, may we go down in the woods a little while?'—I feel so *rich* that close at hand are our *own* woods, and that our little ones can enjoy it at all times. I wonder almost scepticially if they enjoy it with half the ardor their mama did. It seems natural for children to delight in country life and things of nature.—Whether *all* so passionately enjoy rural life, I know not. But of one thing I am sure, that the home surroundings of my first years tinctured my whole life since, and left an impress upon mind and heart I would not do away.

How glad should every mother be for a rural home where the first years of her children's lives may be passed; and how earnestly, for the sake of the influence upon those children's characters, should the possessors of such homes strive to render them beautiful and attractive by every natural aid and acquisition.

"To children, most surely 'things of beauty are joys forever." ELSIE.

Waukesha, Wis..

BREAD AGAIN.

In the *Valley Farmer* of last month we offered a few words on bread. We recommended wheat meal bread, or bread made from unbolted flour, as healthiest, sweetest and best. We have long believed that the whole of the wheat kernel should be eaten. Besides the reasons we offered last month, we propose another important one. We will not give it in our own language, but quote from Prof. Johnson's Chemistry of Common Life. He says, "The *bran* or husk of wheat which is separated from the fine flour in the mill, and is often condemned to humble uses, is somewhat more nutritious than either the grain as a whole or the whiter part of the flour. The nutritive qualities of any grain depend very much upon the proportion of *gluten* which it contains; and the proportions of this in the whole grain, the bran and the fine flour respectively, of the same sample of wheat, are very nearly as follows:

Whole grain	12 per cent.
Whole bran (outer & inner skins)	14 " "
Fine flour	10 " "

The *whole meal* obtained simply by grinding the grain, is equally nutritious with the grain itself. By sifting out the bran we render the meal less nutritious, weight for weight; and when we consider that the bran is rarely less, and is sometimes more than one-fourth of the whole weight of the grain, we must see that the total separation of the covering of the grain causes much waste of wholesome human food." In a note on page 125 he says, "It has been announced by a French chemist that the bran of wheat, besides the nutritious quality it derives from the large percentage of gluten it contains, possesses also the property of dissolving the flour or bread with which it is mixed, and of rendering it more digestible in the stomach. It contains a peculiar species of ferment, which, in the presence of water, and aided by the heat of the oven, and of the stomach during digestion, gradually converts the *starch* of the bread into *sugar*. To this property of bran, as well

as to the nourishment it yields, is to be ascribed a portion of those wholesome qualities which many persons have recognized in wheat-meal bread."

We may remark that physicians have long recommended this bread for dyspeptics and people of delicate health. There can be no doubt that it is the healthiest bread yet known to our cooks.

[The following letter, although a private one, is too good not to be published. We crave our friend's pardon for the public use we make of it.]

TROUT FISHING.

Dear Friend:—I returned the other day from the back-woods, where I tramped a week. The back-woods is a wide extent of primitive forest land, a hundred miles square. Perhaps no other country of equal area has so many lakes and streams, and these alive with trout. You may ask, how can that be, here in the Empire State, among so many sportsmen, especially as the woods are full of deer? There is a very potent reason—the flies. There are gnats, musquitoes, and black flies. The latter are *the* pest *par eminence*. My forehead holds yet some of the pimples. It is this vermin pest that keeps people outof these woods.

A cousin and I started one morning from Forest Port, at the head of the feeder of the Black river canal, and tramped it twelve miles through the woods to a chub lake. We got there before noon, and immediately prepared for action on the lake which lay shining before us, densely surrounded with woods growing down to the water's edge. Oh the view! the freshnes! the wild freedom! where you may shout to your heart's content without fear of frightening aught but the deer or water fowl. Echo answers you—that echo which knows only the scream of the loon and the whistling of ducks. I contrasted the classic echo of the ancients to this untuned reverbration, while listening all night to the aquatic hubbub on the lake. To fish on a lake one must have a boat. To find one was our first object, which we did after a while, but with a man in it, catching minnows, preparatory to fishing for trout. He was a character, I saw at a glance. "Good luck to you, friend," said I, trying to imitate Piscator. We were soon on the move, anchored, and cast our lines. In a moment or so, cousin's rod was bent, and a struggling fellow was trying to rid himself of the barb. The true hand brought him in. A minute more and our friend became all of a sudden excited. Rising in the boat, he commenced taking in his line, a long one. "Play him well; he is a fine fellow." He did play him, and brought him to the boat, easing the lake of more than a pound. He threw out again and immediately brought in another, still larger.—And another. The minnows seem to be the thing. Cousin now fetches one. My turn has at last arrived. There is a stir at the line—not a pull, as I expected from the large fellows. I drew; my hook was fast! now it went. I drew. I felt a heavy motion. This overcame me, and in my excitement I drew hard: an upward motion—a broad underside and a dive downward—and my hook was free, so were my feelings—free to vent. I was less humane than the author of "Letters from under a Bridge"—I was *not* glad my fish had escaped. "Cooler, hereafter," was my secretly adopted motto. I bated the sharp hook again. There were no more "bites" for half an hour. It was my turn first. There was a wiggling felt again. I drew, with the motto keeping in check—slowly, *heavily*. Oh the sensation! The motto made me myself—all my sense was awake. There was a struggling for the nether place, but the faithful steel had him. The British manufacturer had a trout-sense when he made that hook. Less and less grew the water between us. Now and then an indistinct flash; then a wide circle; at last the back showed plain. A lift—he is in the boat. A two-pounder.

Much larger trout are caught; but that was our largest that day. Shall I say how we cooked him—the big one, by the camp fire, just as the sun's arrows shot through the opposite trees on the lake?—in front of the bark shantee—a spring to the left—the lake in front—deer tracks everywhere, and musquitoes scudding by the thousand—the smutch drove them. So we had everything to ourselves, and did as we liked.—And first and foremost, we liked the trout best, cooked as it only can be, in the woods—the moment the life is out of it. The most however was, we had the appetites. The twelve-mile tramp did it. It will knock the dyspepsia any time, be it ever so inveterate. The remainder of the trout were dressed, sprinkled with salt and laid on the ground at the spring, where some animal was prowling about during the night; but we kept them sentineled, as the night was too glorious in the woods to sleep away. Towards day cousin lay down, (our friend had left us,) and I sat beside him, leaning against the bark side of the shanty, now and then rising to pile brush on the fire, which raised the flame half the height of a tree, illuminating the forest grandly, till the place was too warm for comrade's shins, and drove him up to enjoy the scene with me. More anon—perhaps.

F. G.

Editor's Table.

Lectures on Agriculture in Missouri.

The St. Louis editor of the *Valley Farmer* proposes to visit portions of Missouri the approaching fall and winter, for the purpose of delivering lectures on Agriculture. He would regard it as a favor, if the friends of agricultural improvement would inform him, by letter, of the most prominent points in the several counties where such lectures would be desirable, in order to enable him to arrange his appointments.

THE SEASON AND THE CROPS.

Since our last publication some portions of the dry district embraced in Indiana, Ohio and Kentucky have been visited with occasional showers of rain; generally, however the rain came too late to benefit the grass for hay, and Potatoes will be somewhat improved, but the crop will be short. The markets which have usually received large supplies of this vegetable from the valley of the Ohio must now depend on the States bordering on the Upper Mississippi and the Northern Lakes for the deficiency.—Where showers have fallen upon corn that had recieved thorough and clean culture, it has improved and most of it will make a fair crop, even if it should receive no more rain.

In Western Illinois and Eastern Missouri the drouth still prevails. The hay crop is secured and is much heavier than on the borders of the Ohio, owing to slight seasonable rains in the early part of spring. Much of the grass was suffered to get too ripe before it was cut, leaving the hay too woody and less nutricious and palatable to stock than it would have been, had it been cut ten days or two weeks earlier. The meadows are now much dried and burned up and unless rain falls soon, they will be materially injured for the next crop.

For some days during the past month the weather has been intensely hot; on the 15th, 16th and 17th days of the month, four miles from the city of St. Louis, the mercury in the thermometer in the house rose to 100 and 103 degrees, and hanging under the dense shade of trees the same days it rose several degrees above these figures.

Is it a question that admits of a *philosophical* solution, whether the dense settling of a country, and the clearing of the forests, and the opening and cultivation of extensive farms, exposing the moisture on the surface to excessive and rapid evaporation, have any connection with the causes which produce the dry summers which prevail and appear to become more and more frequent and severe? or has the wise Architect of nature, in providing the earth for the abode of man made provisions against such calamaties?

Upon this subject we may at some future time offer some thoughts, and in the mean time we should be glad to receive the views of some of our scientific friends.

CROPS ABOUT JEFFERSON CITY, MO.

Eds. Valley Farmer:—Crops in this immediate neighborhood will be over an average; many crops of wheat will turn out 20 bushels to the acre; hay over a ton per acre. Corn is thin, but looks well. Early oats good. My best wheat was from a piece of ground plowed deep, small plow following in the furrow of the large one, which was drawn by three yoke of oxen, the small one by two mules. At least five bushels of wheat was gained per acre, over the same quality of land plowed by two mules.

Top dressing a part of my meadow last spring with half rotted manure, I think fully doubled my crop on that part of the field. I have tried from one to four gallons of timothy seed to the acre, and prefer two,—four I think makes too close a sod, which excludes the air and causes the crop to fail much sooner than that sown thin. W. A. D.

FROM M'DONOUGH COUNTY, ILL.

The crops in this section never looked better, except oats and meadows, which were injured some by the dry weather in the fore part of June. Wheat will yield a heavy crop. Corn bids fair to bring an abuudant crop. The hard winter has proved a benefit to our hedges, for many of them were not pruned low enough, and the consequence was, they were too thin and open at the ground. The winter killed much of it down to the snow, and it has branched out very thick, and many hedges that never would have made a fence bid fair to be an impenetrable barrier to all stock in one summer more. J. M.

FEMALE TEACHER.—It will be seen by referring to our advertising department, that a lady wishes a situation as teacher, for the coming fall and winter. We wish to do all in our power to encourage good schools, and will most cheerfully aid our subscribers in procuring good teachers, male or female, if they will address us upon the subject. There are frequently excellent teachers in our city, who would be glad to obtain situations, and if we are notified of any vacancies, we will take pleasure in calling their attention to them.

The Valley Farmer a Weekly Paper.

A worthy friend and subscriber, of Lexington, Ky., in writing to us and expressing his own views and those of a number of his neighbors, urges upon us the importance of publishing the *Valley Farmer* weekly, or at least semi-monthly. "Giving us," as he says, "all the current events in our business, and then it will be a paper on which we can rely for the latest market prices of everything in the farmer's and gardener's line." We have deferred replying to this until we could have a personal interview with our associate at St. Louis. The suggestion having been so frequently made that we have been led to think much on the propriety of the course proposed, not less on our patrons' account than on our own, and we have come to the following conclusions: The *Valley Farmer*, as now conducted, contains a large amount of *original* and *practical matter, relating to every department of Agriculture*, together with much that is really valuable and interesting in other departments, and all of a character worthy to be preserved and bound as a *standard work for future reference.*

Should we convert it into a weekly we might, it is true, give the state of the markets and other important events that would prove valuable to the farmer, but there are few farmers who do not take a weekly newspaper, which does, or ought to furnish the current events of the day with all the market news, &c.; indeed this is a part of the business and duty of such papers. But to fill an agricultural paper weekly, will require a large amount of matter and much of it must necessarily be of a light and trashy character, rendering the whole work unsuited for the object for which we design the *Valley Farmer.* Some of the papers which have been changed from a monthly to a weekly issue have confirmed what we have stated, and are not so highly appreciated by their former readers, and some of them will no doubt be changed again to their original style. Others have been started in the weekly form and have been changed to semi-monthlies, and probably by the end of another year they will be reduced to regular monthlies.

Our Present Number.—We present our readers this month with what we consider an exceedingly valuable and interesting number of the *Valley Farmer.* Our article on housing potatoes will be found important to many. It is no untried experiment, but is a practical fact which should be generally adopted by all those who are largely interested in the cultivation of potatoes. The present crop will be a short one and it is important to save it all, and in the best possible manner.

Editorial Call.—We had the pleasure of receiving a short visit last week from Wm. Duane Wilson, Esq., editor of the Iowa *Farmer.*

Iverson Grass Seed.—We have receive many enquiries for this seed. We do not know where it can be procured. Can any one inform us?

Exhibition of the St. Louis Agricultural and Mechanical Association on the 23d, 24th, 25th, 26th *and* 27th *days of September.*—We are gratified in being able to state, that the improvement and preparation of the fair grounds, erection of buildings, &e., &c., for the coming exhibition, are being pushed forward with all possible dispatch. An arrangement has been consummated with the city of St. Louis, to supply the grounds with water from the reservoir, and the water pipe is already upon the ground.—This is an excellent arrangement. There will be a bounteous supply of water for man and beast. We have no doubt but that this will be one of the largest exhibitions in the valley of the Mississippi that will take place this fall.—Our enterprising farmers and mechanics are already making active preparations for it. They know that they will have the whole West, as well "as all the rest of mankind," as competitors, and they are determined to be "up and dressed" for the contest. Who will not be present? We should be glad to take all of our subscribers by the hand, (providing they would not all come to us on one day), during the exhibition. Turn out one and all. Any one desiring the premium list which is now published, will receive it by addressing us at St. Louis, Mo.

Premium List of the Kentucky State Agricultural Society.—At the exhibtion of the State Society, competition in Agricultural implements and machines and other manufactured articles is open to other States. It is the great object and desire of the society to encourage the manufacture of these articles in our own State particularly, and with that view would be pleased to place in the hands of every manufacturer in the State a copy of the premium list.—These lists will be sent to any person who will take the trouble to distribute them, or they will be sent by mail to any one desiring it, on addressing W. C. Lyle, Esq., Recording Secretary, Paris, Ky.; or copies may be had on applicatian to the editor of the Valley Farmer on Main street, Louisville, Ky.

Illinois State Fair Grounds.

Just before our paper went to press we took a ride to Alton for the purpose of taking a view of the Illinois State Fair Grounds. The situation chosen is a most admirable one, about one and a half miles from the city of Alton. Twenty-five acres are enclosed, embracing beautiful native groves of shade trees. The buildings are substantial and admirably arranged for the purpose. In addition to a most spacious amphitheatre 400 feet in diameter, there is erected near the centre of the enclosure, a large building in the form of a cross, with a large octagon centre with a sky-light for the display of paintings, &c. The three wings of this building are each 40 feet by 100 feet; one for the exhibition of flowers, another for the fruits, &c., and the third for music and the fine arts. A large hall is erected for machinery, another for textile and manufactured articles, also a large tent for kitchen, garden, and dairy products. At the entrance of the grounds, commence stalls for the protection of stock which encircle nearly the entire grounds. A carriage drive of two miles in length is opened, winding in graceful curves, and passing in close proximity to the main offices and the central buildings, then winding by the various exhibition halls to the place of exit.—Six wells have been sunk in various portions of the grounds, affording an abundant supply of water for man and beast.

The whole work has been designed with superior skill and judgment, by Jos. A. Miller, Esq., Civil Engineer and Draftsman, of Alton, under whose charge the buildings are rapidly approaching completion.

The beautiful situation of these grounds, the central position they occupy, and the excellent arrangement and substantial character of the buildings, renders this location an admirable one for the permanent location of exhibitions.

Fine Stock for the West.—We saw a few days since, on board a steamer, at St. Louis, a collection of very superior cattle and sheep, consisting of ten head of cows and heifers, and a bull, Prince Albert, and also a number of head of Southdown and Cotswold sheep. The stock was in charge of the owner, J. W. Combs, Esq., of Woodford county, Ky., and was destined for his farm near Boonville, Mo. These animals were chiefly bought of Douglas Young, of Woodford. The heifers had all been bred to the best bulls in the herd of R. Achison Alexander, of Woodford county, Ky,

The Paris (France) Agricultural Exhibition.

It will probably be remembered by the most of our readers that a great National Agricultural Exhibition took place in Paris during the last spring. From all the accounts that have come to hand, we are inclined to think it a magnificent affair. The exhibition was open to all nations, and we are proud to learn that the highest honors were awarded to American genius, and that every article presented by American exhibitors for serious competition drew prizes. We only regret among the thousands of agricultural implements and machines now in use in the United States, and unsurpassed by those of any other nation, that a larger number and a greater variety of the products of our soil were not exhibited. Four machines by American competitors were exhibited, to which were awarded premiums as follows: Pitt's Grain Thresher, Separator and Cleaner, from Buffalo, N. Y., drew a fine medal, and the machine was sold to the Emperor for 2,200 francs. Manny's Reaping machine drew a first class medal. Stone's Rice Scattering machine, and McCormick's Reaping machine drew second class medals.

The number of entries was very great. The catalogue filled a large volume of 470 pages. There were on the ground 1300 head of cattle, including Short-horns, Herefords, Devons, Ayrshires, Black Poled Cattle, Black Angers, West Highland and Irish Kerry, mostly from England and France. Of the various Swiss tribes of horned cattle there were 228 animals; of the Dutch breed, 40 animals; of the Tyrolese and Austrian, 62 animals; of the Long-horned Hungarian, Moravian, Gallacian, Bavarian and Bohemian races, 46 animals; of the Saxony, 12 animals; of Holstein and Denmark, 32 animals, and four Buffaloes from Hungary.

The great variety of horned cattle must have afforded an interesting spectacle to the lovers of this class of stock.

There were a great number of sheep on exhibition from France, Great Britain, Holland, Austria, and Saxony.

Swine.—The number of hogs on exhibition was not equal to the number of sheep. They were mostly furnished by France and Great Britain.

Poultry of every variety, numbering 1400 birds were exhibited.

The implements and machines of agriculture numbered 2,107 entries. These were contributed by Great Britain, Australia, Belgium, Holstein, Denmark, Roman States, United States,

Grand Duchy of Luxemborg, Holland, Prussia, Saxony, Switzerland, Wurtemberg and France.

In the departments of Agricultural Produce, there were 4,635 entries, 500 of which belonged to England and various other nations, and 4035 to France, chiefly contributed by the *Government Schools of Agriculture.*

THE VALLEY FARMER.—When we commenced the Eighth Volume of the *Valley Farmer* in January last, and established it in Louisville, Ky., in presenting our prospectus to the farmers many of them objected to subscribing for it upon the ground that they had so frequently subscribed for similar papers, which from a want of sufficient patronage to sustain them had ceased to exist after the publication of a few numbers, leaving the subscribers to lose a portion of the money they had advanced. But when it became generally known that the paper had been many years established and that it had a wide and extensive Western circulation, our list of subscribers continued to increase, not only at the office in St. Louis, but at the office in Louisville, to a number far beyond our most sanguine expectations, so that now, in its eighth month of the present year, its united circulation exceeds, we believe, any other similar work in the West. We feel greatly encouraged in our labors from the approbation with which it is everywhere received. Of its present appearance and character we will not now speak, but leave our readers to judge for themselves. But with our present prospects we hope to continue to improve it until it shall command a circulation second to no agricultural paper in the United States. Before we united our labors with the *Valley Farmer,* we were frequently solicited to publish an agricultural paper in Kentucky, but from the fate of all those that had heretofore been started in the State we declined doing so. But now, from the facilities afforded by an old established paper, we are not only enabled to add many needed improvements to it, but also to travel much among the farmers, taking notes of their operations and improvements for the benefit of our readers, as well as to employ a number of the best writers to contribute to the different departments of its pages.

We still solicit our friends who appreciate the importance of a standard agricultural paper in their midst to aid us in extending our circulation.

☞An Agricultural Society has recently been formed in Clinton County, Ill. A Fair will be held in October. O. B. Nichols, Esq., is President of the society.

ACKNOWLEDGEMENTS.—We are indebted to T. E. C. Brinley, Esq., widely and favorably known as the manufacturer of the celebrated plow bearing his name, for two ancient volumes, the ninth and fifteenth in the series of the *Transactions of the Bath and West of England Society for the encouragement of Agriculture, Manufactures, Arts and Commerce,* for the years 1789 and 1795. These volumes contain a large amount of valuable correspondence, essays, statements, &c. on agriculture, the improvements in stock breeding in that portion of Great Britain at that early date, in which the lords, noblemen and the common farmers, took an active interest, evincing a degree of progress and improvement at that date, that we did not expect to find recorded, and contrasting most strikingly with the little advancement made in the United States until within the last ten years.

We shall from time to time make some interesting extracts from these volumes, having already done so in the present number of the Valley Farmer, on the advantages of wheat drilling.

We are also indebted to the officers of the Kentucky State Agricultural Society, the Kentucky Ag. and Mechanical Association, at Lexington, the Union Ag. and M. Association, at Eminence, and the South Western Ag. and M. Association, at Louisville, for copies of their several regulations and premium lists.

LIST OF PREMIUMS FOR THE ST. LOUIS COUNTY AGRICULTURAL AND MECHANICAL ASSOCIATION.—We have received a copy of the list of premiums offered by this association, at the fair, to be opened on the 23d of September next. The amount of premiums is not only larger, but the list is the most comprehensive and liberal of any offered by any local associatton in the United States. The list embraces 32 premiums of $50 and $60 00; 10 of $75 and $80 00; 12 of $100, and 3 of $150, besides a very large number of premiums from $50 down to $2, and including many medals and diplomas. A list of premiums so liberal, embracing so wide a range of articles, should call out a large number of competitors and an immense concourse of visitors to the fair.

The amount of premiums offered on the several essays, we think should have been larger and more in proportion to the liberal prizes offered on articles in the mechanical line and on stock. The prizes on essays should be such as to call out a large number of the most talented writers in the West. The essays, of course, will be published for the benefit of theworld.